



DICKINSON

COLLEGE

BULLETIN

1969/1970

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COLLEGE
BULLETIN

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1773-1969*

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1969-1970*

Volume LXI, No. 8





The John Dickinson Campus, 1856

Calendar

1969

JULY

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Dickinson College Calendar

FALL SEMESTER, 1969-1970

Freshmen Orientation Begins—Sunday, September 7.
Registration—September 8 and 9.
Convocation—Tuesday, September 9.
Classes Begin—Wednesday, September 10.
Last Day for Regular Adding or Changing to Pass/Fail—Wednesday, September 24.
Last Day for Regular Dropping or Adding with Special Permission—Wednesday, October 1.
Last Day to Drop with Special Permission—Wednesday, October 22.
Roll Call and Last Day to Drop in Level—Monday, November 3.
Thanksgiving Recess—Noon, Wednesday, November 26 to 8:00 A.M. Monday, December 1.
Preregistration for Second Semester—Monday, December 1 through Friday, December 5.
Christmas Recess—Noon, Friday, December 19 to 8:00 A.M. Monday, January 5.
Reading Period Begins—Monday, January 5.
Examinations Begin—Thursday, January 8.
Semester Ends—Thursday, January 15.

SPRING SEMESTER, 1969-1970

Registration—Tuesday, January 20 (*if needed*, also, January 19.)
Classes Begin—Wednesday, January 21.
Last Day for Regular Adding or Changing to Pass/Fail—Wednesday, February 4.
Last Day for Regular Dropping or Adding with Special Permission—Wednesday, February 11.
Last Day to Drop with Special Permission—Wednesday, March 4.
Roll Call and Last Day to Drop in Level—Monday, March 16.
Spring Recess—Noon, Friday, March 20 to 8:00 A.M. Tuesday, March 31.
Easter Sunday—March 29.
Preregistration for September, 1970—Monday, April 13 through Friday, April 17.
Reading Period Begins—Thursday, May 7.
Examinations Begin—Tuesday, May 12.
Semester Ends—Tuesday, May 19.
Commencement—Sunday, May 24.

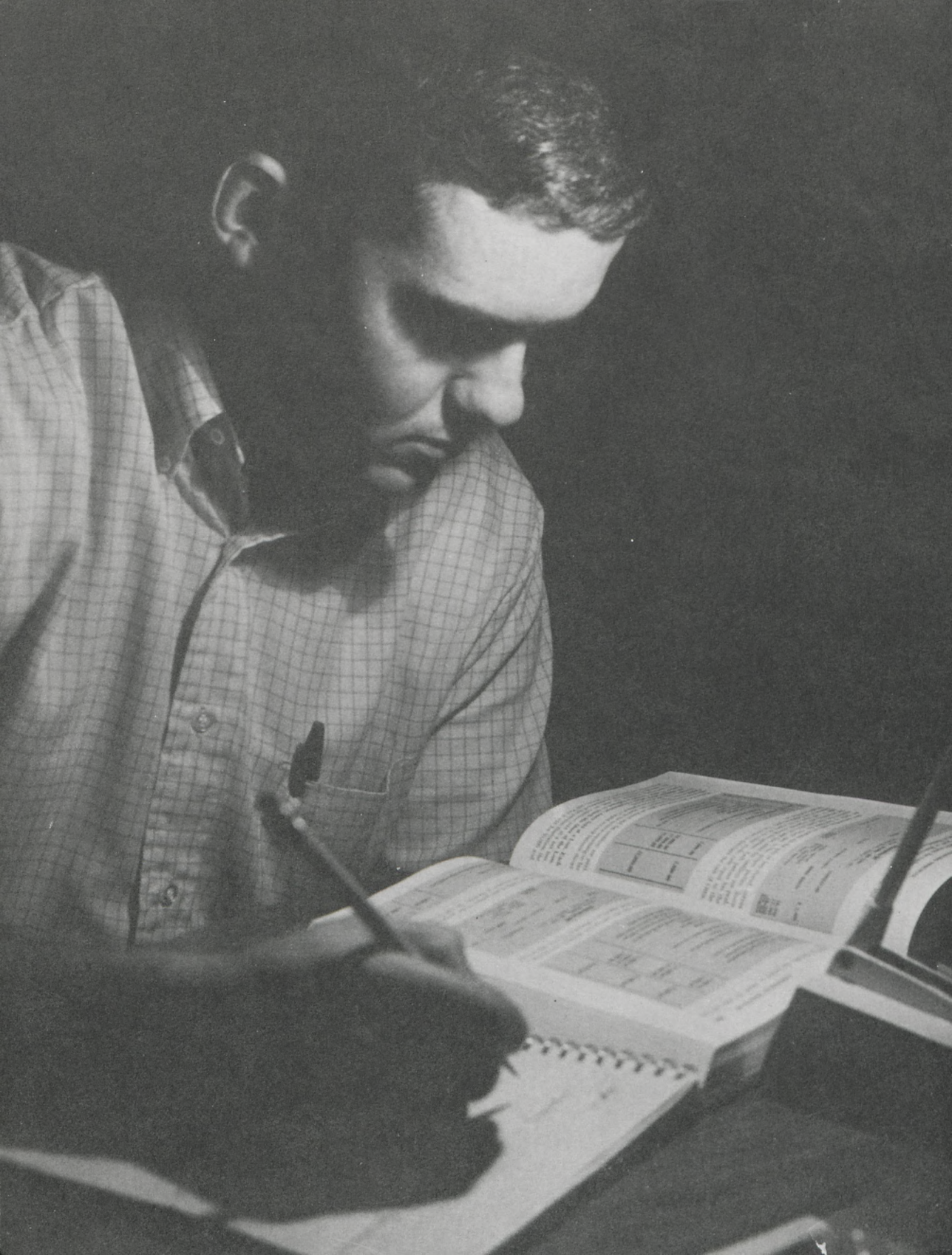
SUMMER SCHOOL, 1970

Registration for First Session—Monday, June 8 (morning).
Classes Begin—Monday, June 8 (afternoon, this day only).
Independence Day Recess—Friday, July 3.
First Session Ends—Wednesday, July 15.
Registration for Second Session—Monday, July 20 (morning).
Classes Begin for Second Session—Monday, July 20 (afternoon, this day only).
Second Session Ends—Tuesday, August 25.

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Introduction to Dickinson College

The Aims of Liberal Education

SENECA, the ancient Roman philosopher, said, "There is only one liberal study—that which gives a man his liberty." It has been a conviction of many since the time of Plato that men are truly free—and, hence, truly human—when endowed with a knowledge and understanding of the world in which they live. Such knowledge and understanding has the capacity to loose the fetters of superstition, ignorance, prejudice and fear. However, these qualities are likely to be found among men whose human qualities also include creative and critical intellects. Accordingly, liberal learning has sought to produce disciplined minds capable of logical analysis and fruitful imagination.

The assurance that objective reality exists has always been characteristic of liberal learning. With all the changing notions

of reality, scholars—both teachers and students—continue to seek the truth of reality in order that its power might be theirs. For real power is freedom, freedom to accomplish good or ill. As Carlyle put it, “An educated man stands, as it were, in the midst of a boundless arsenal and magazine, filled with all the weapons and engines which man’s skill has been able to devise from the earliest time.”

ONE final assumption has guided the liberal educational tradition; that is, that insights about the nature of ultimate reality would give man the knowledge requisite to moral sensitivity and responsibility. But, in addition, many have been persuaded that insight derived from religious symbols would effect a commitment of the will which would determine man’s moral decisions. Liberal education, then, is truly “liberating” when the educated man is able, by virtue of the power gained through knowledge, to influence both his environment and the course of history and when, by virtue of a self-conscious philosophic or religious worldview, he uses his power in the service of human community.

The essential aims of liberal education have remained the same into our own time. It is true that as society has evolved and as the quantum of knowledge has expanded and has been refined, much of the content of a liberal education has changed, but the cultivation of both the intellectual and moral virtues remains the fundamental task. Liberal learning seeks to produce men and women, as the poet Milton wrote, “inflamed with the study of learning and the admiration of virtue; stirred up with high hopes of living to be brave men and worthy patriots, dear to God, and famous to all ages.” Dickinson College seeks to continue and strengthen this tradition in the last half of the twentieth century.

A Brief Historical Sketch of the College

DICKINSON College received the fundamental law that governs it, along with authority to grant the usual academic degrees, from the Pennsylvania legislature by act of September 9, 1783. "After a long and bloody contest with a great and powerful kingdom," as the charter says, the legislature found an opportunity to foster higher learning by creating at Carlisle "a college for the education of youth in the learned and foreign languages, the useful arts, sciences and literature." The name Dickinson College was bestowed in honor of John Dickinson, "Penman of the Revolution," then governor. John Dickinson was listed first among the trustees and contributors, and he became first president of the Board.

The founder of the College was Dr. Benjamin Rush, a signer of the Declaration of Independence. As a politician he involved the issue in subtle and devious maneuvering which did little to advance it. But as a man of intense energy and great vision he made his new institution at once a significant part of the first comprehensive scheme for higher education that Pennsylvania developed in a period when colleges were desperately needed. The historic value of Dickinson College as educator of leaders

for the rising nation is undoubted; historians have recognized sixty of its graduates, in the *Dictionary of American Biography*.

Despite the need for colleges, Americans were psychologically unprepared to support them. At first it was assumed that private philanthropy and Presbyterian sponsorship would take care of all needs. Later, the College resorted to state aid and, finally, in 1833, a transition to Methodist sponsorship took place. As soon as the College was chartered, gifts of books, lands, and money were solicited in England and America. Most of the scholarly but rare and ancient books that arrived in the 1780's may be seen in the College Library today. The lands contributed were sold, and the funds were used almost immediately. The trustees tried without success to induce the Continental Congress to give them the Carlisle Barracks property for use as a campus. Meanwhile, professors delivered lectures in the Carlisle Grammar School, a private school established by a proprietary patent in trust in 1773. The professors also undertook to manage the grammar school; accordingly, in 1788 the patentees transferred the schoolhouse to the College, and the College was obliged to administer a preparatory school until 1917.

APPLEALS for state aid increased in frequency. In the 1780's, however, Pennsylvania had little to offer except land. In 1786 the legislature granted £500 and endowed the College with 10,000 acres of the land of the Last Indian Purchase. This act of munificence did the College more harm than good, for lands had to be held to produce an income; meanwhile, taxes imposed on them absorbed much of the College's revenue. Further statutes in favor of the College authorized a lottery to raise \$2,000 in 1789, granted £1,500 in 1791, and added \$5,000 in 1795. An additional £3,000 granted in 1798 enabled the trustees to purchase a seven-acre lot and to begin on it a proper college building. That original lot constitutes the main campus today. Brought close to completion in 1803, the building was destroyed by fire imme-

diately. "Go to the Legislature! 'Strike while the iron is hot,'" wrote Benjamin Rush; the legislature responded by lending \$8,400 on the security of the land endowment. Some years later the state canceled the mortgage, commuted the land grant of 1786 to a lump sum of \$6,000 and bestowed a further \$10,000 on the College. All this money was needed to pay debts and bring to completion the ambitious new building, the oldest now standing on the campus. Designed by Benjamin Henry Latrobe, this structure is regarded as one of America's most pleasing examples of the Georgian style. For a century West College continued to serve as dormitory, classrooms, chapel, offices, and even as a professor's residence; today its use is chiefly administrative.

A college is, of course, a great deal more than endowments and a habitation. Dickinson's history links the world of Joseph Priestley's theoretical element, "phlogiston," with that of space science, the world of the Holy Roman Empire with that of the European Common Market. Changes in curriculum and in student life had to be correspondingly great. Today we take for granted a four-year college course, and students are classified accordingly. Although students began graduating in 1787, until 1796 the length of the course was indefinite. In the latter year the College established a three-year course and classified its students as freshmen, juniors and seniors. Brief deviations to a two-year and even a one-year degree followed, but in 1814 sophomore status was inserted and the four-year scheme was completed. For a full century a rigid curriculum composed of a wide variety of subjects was taught by a very small faculty. Typically, only four or five departments were listed, and each was taught entirely by one man: classical languages, mathematics, English, religion, and natural science. But these categories are misleading. "English" included such topics as geography, political economy, philosophy, and the United States Constitution. Modern languages were introduced about 1812, but until the 1880's they were usually extra electives for which a special fee had to be paid or were allowed as substitutes for advanced Greek. Natural

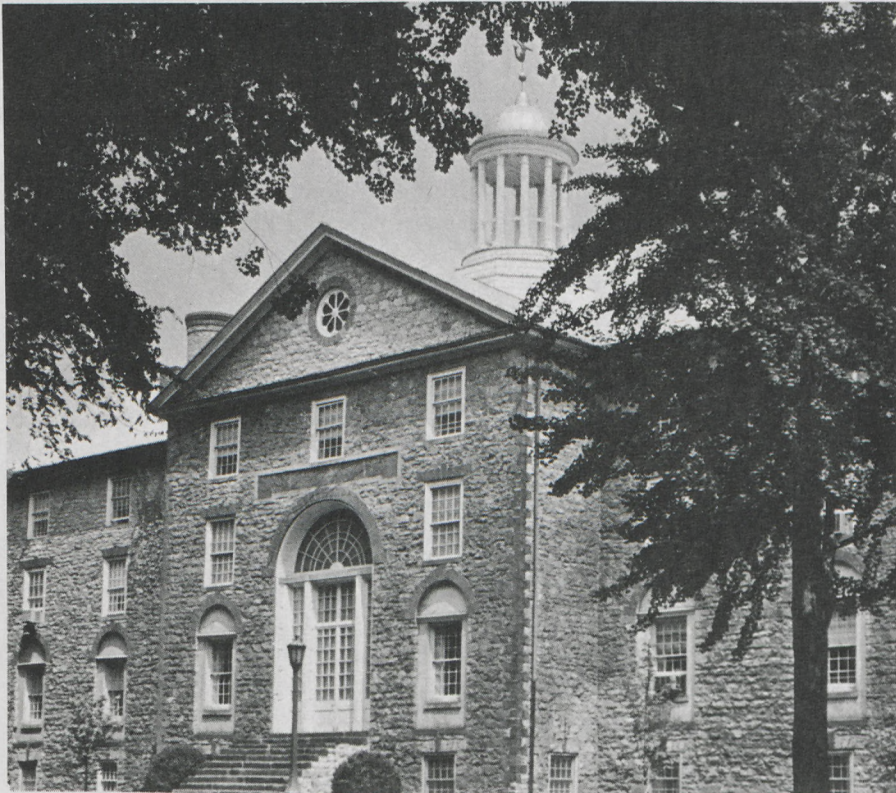
science remained mainly an aspiration until about 1812 when a powerful stimulus put scientific studies on a permanent basis. In that year, by an amazing stroke of luck, the College acquired the scientific apparatus that had belonged to Joseph Priestley, one of the outstanding scholars of the Enlightenment and the first man to isolate and study oxygen. Priestley's instruments have been kept in good order, and in 1965 his descendant, Mrs. Temple Fay, gave the College an heirloom collection of books, papers, portraits and other mementos.

WHILE campus organizations are more numerous today, student life was organized more tightly before 1850. The number of students was always small; as late as 1930 there were only about 300, as against 1,400 today. Their first organizations were the Belles-Lettres Literary Society, founded in 1786, and the Union Philosophical Society, which dates from 1789. These were literary and debating societies and fraternities, and they profoundly affected their members. Despite their tradition of intense rivalry they jointly founded *The Dickinsonian* in 1872 and jointly conducted it for many years. These societies still exist, but they abandoned the ancient competition when World War II broke old patterns. Belles-Lettres became strictly literary, and Union Philosophical took politics as its field. A long decline in the loyalty to the old societies began with the advent of national fraternities in the 1850's. The new fraternities were forbidden by the faculty, but they long existed on the campus secretly. They became residential about 1899.

A greater revolution than fraternities was coeducation which came in 1884. After eight years' consideration the faculty agreed to admit a few young women, "protected in their education from all that might be indelicate." Another important innovation of 1884 was the rise of organized athletics and the erection of a college gymnasium. Phi Beta Kappa—Pennsylvania's oldest chapter—was introduced as a scholastic honor in 1886. A general

student government has been continuous since 1908. Curiously enough, the students drew up their constitution and elected their first senate because the faculty required it of them to check the dangerous rivalries of campus organizations and the hazing of freshmen. For some years election as a senator was regarded as a chore rather than as an honor.

The gray-walled campus always has served as a park and a playing field, its history punctuated by major fires, by the bivouac of a Confederate army in 1863, by drilling troops in 1917 and again in 1942. For a time professors and even students cultivated cabbages and onions there. Today classes are often held there in spring and summer weather, and there also the Commencement ceremonies have taken place, in front of "the old stone steps" of "Old West."



The Campus

BUILDINGS AND GROUNDS

The plant of the College, consisting of fifty buildings, is constructed chiefly of limestone, in Georgian design. The John Dickinson Campus, on which seven of the college buildings are located, is framed by a low limestone wall, most of which was erected in 1833. Other buildings are grouped around this campus and are also located on the Benjamin Rush Campus, a twelve acre tract diagonally across from the older campus. Newest features of the Dickinson landscape are the new Spahr Library, which opened in September, 1967, and Kisner-Woodward Hall.

The grounds, buildings and equipment of the College are appraised conservatively in excess of \$15 million. Following are some key buildings in the academic plant:

ALTHOUSE SCIENCE HALL. Named in honor of C. Scott Althouse, the imposing limestone structure houses the Chemistry and Geology departments. The building, completed in 1958, has lecture halls, laboratories, a scientific library, and a museum. A unique seven-telescope observatory, designed for the teaching of astronomy, is located on top of Althouse Science Hall.

TOME SCIENTIFIC BUILDING. Built in 1884 and completely renovated in 1958, the limestone and Ohio sandstone structure houses the Department of Physics and Astronomy. The Roscoe O. Bonisteel Planetarium is located in this building.

REED HALL. A three-story stuccoed structure named in honor of George Edward Reed, President of the College from 1899 to 1911. The building, renovated in 1958, houses classrooms, offices, and laboratories of the Psychology and Education Departments.

CHARLES A. DANA BIOLOGY BUILDING. Completed in 1966, it is air-conditioned, and houses the classrooms, lecture hall, laboratories, faculty offices, department library, and research areas of the Biology Department.

DENNY HALL. The three-story red brick building reconstructed in 1905 after being destroyed by fire in 1904, contains classrooms, faculty offices, ROTC offices, and the halls of the two historic literary societies which date back more than one hundred and seventy years.

SOUTH COLLEGE. Erected in 1948 adjacent to the Alumni Gymnasium this limestone building houses seminar rooms, classrooms of the Department of Mathematics, and the new IBM computer center. Squash courts are attached to South College.

BERNARD-EAST. Built in 1836 of the same materials and style of architecture as West College, the four and one-half-story building is currently being modified for use as a Humanities Center.

WEST COLLEGE. Affectionately known to generations of Dickinson students as "Old West" the building was designed by Benjamin Latrobe, architect of the Nation's Capital, who gave the plans without charge as his contribution to the frontier college. Designated a "National Historic Landmark" by the National Park Service in 1963, it is the only surviving example of the famed architect's work virtually unchanged by passing years.

BOSLER HALL. Built in 1884 and completely renovated in 1969, the former library now houses the Department of Modern Languages, the Department of Music, and the Department of Fine Arts. The new electronic Learning Center is also located in Bosler Hall.

ALUMNI GYMNASIUM. Erected in 1929 the three-story building provides facilities for indoor athletics and physical education including a fully tiled 25 x 75 swimming pool. The main auditorium seats 3000 spectators.

HOLLAND UNION BUILDING. Completed in 1964 the block-long Union houses meeting rooms, recreation and lounge areas, campus publications offices, student radio station, 240-seat theater workshop, snack bar, college store, and dining facilities for the entire student body.

THE BOYD LEE SPAHR LIBRARY. The College Library moved into its new building in 1967—approximately 170,000 volumes—and receives 1,050 periodicals. It is designed to support scholarly research and independent study as well as the regular academic program. These resources include printed materials in every form, recordings, microfilm, photographs and manuscripts, and are designed to support scholarly research and independent study as well as the regular academic program.

The Library provides seating for 800 readers, including closed studies for faculty use and open “honors carrels” for assignment to students engaged in independent projects. The open-stack book collections are concentrated on upper and lower levels. Reference and audio-visual areas are on the main floor. The Alexander A. Sharp Room near the main entrance offers an opportunity for relaxation in an attractive setting.

On the upper level, the May Morris Room serves special collections users from the adjoining vault and closed stack. Near its entrance, the Alvah Arthur Wallace Lounge commands a broad view of the Rush Campus.

The Library is a United States Government Depository, a member of the Union Library Catalogue of Philadelphia Metropolitan Area, and a member of the Area College Library Cooperative Program of Central Pennsylvania.

The Library is open from 8:00 A.M. to 10:45 P.M. Monday through Saturday, and 1:00 P.M. to 10:45 P.M. on Sunday.

FRATERNITY RESIDENCE HALLS. A complex of ten individual dormitories completed in 1964 provides study and recreation areas for the College's ten national fraternities.

DRAYER HALL. A modern four-story limestone residence erected in 1951 for women provides housing for 125 students. Named in honor of Mr. and Mrs. S. M. Drayer.

ADAMS HALL. A women's residence hall is named for Dr. and Mrs. Rolland L. Adams, and was completed in 1963. It houses 165 students. The building, in addition to providing dormitory and study areas, houses recreation rooms.

THE HERMAN BOSLER BIDDLE MEMORIAL ATHLETIC FIELD. A twelve-acre tract with football field, tennis courts, lacrosse field, baseball diamond, and tartan track for use in varsity and intramural sports. A fully equipped building completed in 1963 provides dressing and storage facilities.

BIDDLE HOUSE. Acquired by the College in 1946 and renovated in 1963, the building serves as a residence hall for 30 men students.

SELLERS HOUSE. The three-story building acquired by Dickinson College in 1943 serves as a residence hall for 10 women engaged in Independent Study and Honors work.

McINTIRE HOUSE. A two and one-half-story building acquired in 1948 and used as a residence hall for 15 women.

MATHEWS HOUSE. Acquired in 1955 and renovated in 1963 this three-story brick building serves as residence hall for 20 men.

MONTGOMERY HALL. Since 1953 this seven-apartment building has served as a housing unit for members of the faculty and their families.

MORGAN HALL. A modern four-story limestone residence hall erected in 1955 providing housing for freshman men.

MALCOLM HALL. A modern residence hall erected in 1966 for 80 men.

THE PRESIDENT'S HOUSE. A stately brick mansion erected in 1833 has been the residence of the Presidents of the College since 1888.

WITWER HALL. A women's residence hall is named for the Witwer Family, and was completed in 1966. Providing housing for 76 students, it also contains study areas and a recreation room.

KISNER-WOODWARD HALL. A residence hall for independent upper-classmen is named for Helen Kisner Woodward and Hugh B. Woodward. Completed in 1969, it provides housing for 92 students.

DICKINSON COLLEGE CHAPEL AND ALLISON UNITED METHODIST CHURCH. Constructed in 1957 of limestone, the Chapel is located on the Benjamin Rush Campus and used jointly by the College and the Church.

TODD HALL. Named in honor of Glenn E. and Mary Line Todd this residence for 28 women was opened in 1964.

HEALTH CENTER. Located on the ground floor of Drayer Hall the Center houses a completely equipped dispensary and infirmary.

JOHN DICKINSON CAMPUS. This campus of seven acres lies in the western section of the Borough of Carlisle. It was purchased from the Penns by the Trustees in 1799. Prior to that time the site of the College was the old Grammar School property in another location in Carlisle, where instruction was begun in 1773. Most of the principal buildings of the College are grouped on or adjacent to the John Dickinson Campus.

BENJAMIN RUSH CAMPUS. The College added to its property in 1931 by purchasing "Mooreland," an estate of twelve acres bordering on the main campus. On this campus are located Drayer Hall, Morgan Hall, Adams Hall, Witwer Hall, and College Chapel.

THE COLLEGE SPORTS AND RECREATION AREA, consisting of sixty-five acres, is located two miles east of the campus along Route 11, Harrisburg Pike. It now contains a golf-driving range, a biology natural life study area, an apartment dwelling and storage area. The land is being graded, drained and prepared for athletics.

Admissions

The Committee on Admissions and Student Aid assumes that each applicant is academically and intellectually capable. However, admission to Dickinson is competitive and careful attention is paid to the strength of scholastic preparation and the results of the required examinations. Outstanding scholastic achievement and ability are important but not decisive. The committee is interested not only in the intellectually superior student but also in those who have made a positive contribution to their school and community.

ADMISSIONS PROCEDURES

The admissions application and secondary school transcript form may be obtained from the Office of Admissions. A fee of \$20 is required and this fee is neither refundable nor credited to any account. Regular decision candidates should apply prior to February 15 of their senior year; early decision candidates prior to December 1.

An applicant should make arrangements for a visit to the college and an interview with a member of the admissions staff. Interviews may be scheduled between 9:00 a.m. and 4:00 p.m.

Mondays—Fridays.

Group interviews are conducted on Saturday at 9:30 a.m. and 11:00 a.m.

Appointments should be made well in advance of a planned visit.

It is recommended that an applicant submit an autobiography in which he evaluates his strengths and weaknesses.

ADMISSIONS REQUIREMENTS

THE MINIMUM REQUIREMENT FOR ENTRANCE TO DICKINSON COLLEGE is the satisfactory completion of a secondary school program of at least sixteen units, including four units of English, two (preferably three) units of one foreign language, and two (preferably three) units of college preparatory mathematics. The remaining units should be academic courses.

However, experience indicates it is unusual for a student to apply for admission fulfilling only the minimal requirements. Indeed, those applicants whose preparation has included advanced programs of study in all areas are most successful in their quest for admission.

THE TESTS OF THE COLLEGE ENTRANCE EXAMINATION BOARD: The Scholastic Aptitude Test is required of all applicants. Although the results of this test taken in the junior year may be submitted for Early Decision, it is required that *all* admissions candidates take the Scholastic Aptitude Test again in their senior year, preferably in December, and certainly no later than January.

The Achievement Tests are necessary for placement purposes. Three achievement tests are required of all candidates:

- (1) the English Achievement Test;
- (2) a foreign language achievement test (classical or modern); A student who fails to place in at least the 102 level of a language which he pursued in high school may take the 101 course—but with no credit.
- (3) a third achievement test of the candidate's own choosing. However, it should be noted that a student planning to study mathematics or science must take a mathematics achievement test.

Application and schedules for these examinations may be obtained by writing to the College Entrance Examination Board, P.O. Box 592, Princeton, New Jersey.

Unusual cases involving divergence from these requirements will be considered on an individual basis by the Committee on Admissions and Student Aid. Students from other countries should submit requests as early as possible in order that they may be furnished a copy of the special instructions pertinent to them.

PARTICIPATION IN ADVANCED PLACEMENT PROGRAM: A student who achieves a grade of four or five on a College Entrance Examination Board Advanced Placement Test will receive credit for college work in the appropriate course.

A student who achieves a grade of three on a College Entrance Examination Board Advanced Placement Test will receive credit for college work in the appropriate course dependent upon departmental evaluation and recommendation.

Subject matter areas for which no Advanced Placement Examinations exist, and which have been taken at an advanced level, upon petition may be evaluated by the relevant department for advanced status.

Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will satisfy the prerequisites requirement in that department for advanced work.

EARLY DECISION

The qualified candidate for whom Dickinson is clearly the first choice may apply for Early Decision. Such students must apply prior to December 1 of the senior year and should schedule interviews before that date. The results of the Scholastic Aptitude Test taken in the junior year may be submitted for Early Decision but *all* candidates are still required to take this test in December or January of the senior year.

NOTIFICATION

The Early Decision candidate is notified prior to January 1. Regular decision candidates will be notified prior to April 15.

TRANSFER STUDENTS

Dickinson College accepts a few transfer students. It is assumed that an applicant is in good academic standing at the institution last attended, and he must present official transcripts for both college and secondary school work.

The minimum requirement for a degree from Dickinson College is the satisfactory completion of four semesters (16 courses), two semesters of which must be those of the senior year. Distribution requirements and requirements in the major field of study must be satisfied by transfer credit or credit at the college before a degree can be granted. Credits presented for transfer are evaluated by the Committee on Admissions and Student Aid.

Application should be made prior to April 15 for the fall semester and prior to December 15 for the spring semester, and an appointment should be made for a personal interview. Transfer students (except junior college graduates) are not eligible for financial aid during their first year.

READMISSION

Any formerly matriculated student who wishes to re-enroll must file an application for readmission. Such applications should be filed with the Registrar prior to April 15 for the fall semester, and prior to December 15 for the spring semester. A student who was required to withdraw should consult pages 147-148.



Expenses

The cost of higher education is rarely reflected by the fees charged to students and their families. Normally, tuition and general fees must be supplemented by substantial income from endowed funds, annual giving by friends and alumni, and grants from government and private corporations. Those parents who wish to assist the College in bridging the gap between tuition income and budgeted expense are invited to contribute to the College through the Parents Fund. This gift is tax deductible.

All college bills are due and must be paid in full before registration each semester. Failure to pay college bills when due will result in exclusion from College, and no student can have an honorable dismissal or a certificate of advancement until bills have been adjusted and all obligations have been met.

The Trustees reserve the right at any time to amend or add to the regulations of the College, including those concerning fees and methods of payment, and to make such changes applicable to students at present in the College, as well as to new students.

GENERAL CHARGES

Annual tuition for all full-time students at Dickinson in 1969/1970 is \$2,000.* In addition, all full-time students are required to pay a Comprehensive Fee of \$200. The Comprehensive Fee covers such items as cultural affairs, student publications and other Student Senate activities, the Holland Union program, health fees, admission to events,

*\$2,200 in 1970-71

APPLICATION FEE. The \$20 application fee is non-refundable and is not credited on any subsequent bill. It defrays in part the expense of investigating records, of advising applicants, and the performance of other services provided by the Office of Admissions.

Transcript of Record, extra copies each	\$1.00
Practice Teaching in High School	35.00
Graduation Fee	10.00
Partial Program, per course	250.00
Late changes in courses (add)	5.00
but not to exceed	15.00
Changing of schedule	15.00
Late writing of schedule	15.00
R.O.T.C. Fee, one semester only	5.00
Service Charge, payable on all unpaid accounts after 9/10	8.00
Automobile Registration Fee, annual	10.00
Registration for Credit by Examination	15.00

Full Semester—one hour lesson	140.00
Full Semester—half hour lesson	75.00
Partial Semester—one hour lesson	per hour 12.00
Partial Semester—half hour lesson	per hour 7.00

Room and board, for both men and women, is \$550 per semester. The same rent for all rooms is to permit an equitable system of room assignments without reference to family income.

Rooms are furnished with the basic pieces of furniture. There is a study light outlet for each student, in addition to a ceiling light. Personal items such as pillows, blankets, sheets, pillowcases, towels, and

personal toilet articles are not furnished by the College. The Gordon-Davis Linen Supply Co., 1620 North 11th Street, Philadelphia, Pennsylvania 19122, is authorized to offer all resident students a complete weekly linen rental service. Additional information may be obtained directly from the company, or arrangements for linen service can be made after arrival at college.

All resident students are required to board in the College Dining Hall. The College reserves the right to make increases in board charges in case of increases in food costs.

A Snack Bar is operated in the Holland Union where students may purchase breakfast, lunch, and dinner at nominal prices.

ESTIMATED ANNUAL COST

While expenses for the academic year at Dickinson will vary with each student, experience has shown the following costs to be average:

Tuition	\$2,000
Comprehensive Fee	200
Board and Room	1,100
Books	150
Sundries	150
	<hr/>
	\$3,600

PLAN OF PAYMENTS

All charges and fees are due prior to Registration. An itemized statement of charges is mailed in August for payment prior to the September registration. An additional itemized statement is mailed in December for payment prior to the January registration. Where a satisfactory plan is presented to the Treasurer of the College, a student is permitted to register under a deferred payment agreement with a Service Charge added. The Tuition Plan, Inc., The Girard Trust Plan, The Insured Tuition Payment Plan, and other approved plans are acceptable. Additional information on these plans is obtainable from the Admissions and Treasurer's offices.

REFUND OF CHARGES

A student in good standing is entitled to honorable withdrawal at all times. The date on which the Dean of the College approves the student's withdrawal form is the official date of withdrawal. A student

desiring to withdraw voluntarily from the College must obtain from the Registrar an Application for Withdrawal. This form must be properly filled in and returned to the Registrar before the student leaves the campus. No refunds will be made by the Business Office until the Registrar's Office certifies that the withdrawal procedure has been properly completed.

Every college has many expenses of a continuing nature. In order to plan and maintain these services over the entire year, it is essential that the annual income from fees be assured. It is understood, therefore, that students are entered for the entire college year. Consequently, the College is not in a position to refund fees already paid or to cancel obligations for unpaid fees.

No refund is made for room charges. Refunds on board charges are made only upon authorization of the Dean of the College.

If a student called away during the semester by an emergency finds it impossible to resume his work, he must notify the Registrar's Office of his voluntary withdrawal immediately. Unless the notice is filed with the Registrar within three weeks, the student will forfeit his right to honorable withdrawal.

If the withdrawal occurs before the end of the semester, the student is obligated for General Charges as follows:

	<i>First Semester</i>	<i>Second Semester</i>
Two weeks or less	29%	73%
Between two and three weeks	34%	80%
Between three and four weeks	45%	86%
Between four and five weeks	53%	93%
Over five weeks	61%	100%

No reduction will be allowed for absence of students withdrawn for unsatisfactory conduct or scholarship.

Financial Aid

A student at Dickinson pays only a portion of his educational cost. The remainder is realized from the generosity of the participants in the Annual Giving program as well as the income from designated endowment funds. No student is denied admission because of financial need. If he is accepted for admission and has financial need, the Committee on Admissions and Student Aid will, in so far as possible, assure that the need will be met and will continue so long as he is in good academic standing. The type of aid will vary annually but generally it is a combination of Grant-in-Aid, National Defense Student Loan, and college employment.

A student desiring financial assistance must file the Parents' Confidential Statement that may be obtained from his secondary school or by writing to the College Scholarship Service, P.O. Box 176, Princeton, New Jersey. Early Decision applicants must submit the Parents' Confidential Statement to the College Scholarship Service no later than November 15 of the senior year. Regular decision applicants must file their statements prior to February 1. Financial aid applicants will be notified prior to May 1.

Student Life

Dickinson College seeks to bring together in the common pursuit of intellectual enlightenment men and women who can create a social environment which befits a community of scholars.

Among the College's major objectives is the goal of instilling in its students the ability to reach wise decisions and to accept the freedom with responsibility which is characteristic of the mature citizen.

In all phases of campus life each student is responsible for his behavior, whether he is acting as an individual or as a member of a group. This is true of his academic integrity and of his social actions.

The faculty of the College is charged with the regulation of student conduct and has delegated authority to the Dean of Students and his staff to maintain an environment conducive to the attaining of academic excellence. However, the establishment of specific standards of student conduct and the enforcement of regulations growing out of these standards are, to a large extent, accomplished by the students themselves.

STUDENT GOVERNMENT

Student Assembly. The Student Assembly, which consists of all students of the College, is the primary agency of Dickinson student government and meets on call when required to act upon constitutional questions. The legislative body of the Student Assembly is the Student Senate, which carries on the day-to-day business of student government. Acting for the Assembly, the Senate schedules and regulates all organized student activities and controls the Student Activities Budget. Various standing committees operate for, and are directly responsible to, the Senate.

Academic Violations Hearings Board. Offenses against accepted standards of academic integrity are referred to the AVHB, which is composed of three students and three members of the faculty.

Social Violations Hearing Board. A student-faculty disciplinary body of Dickinson College which deals with social violations. It handles all cases of breach of good conduct referred to it by any member of the college community.

COUNSELING AND ADVISING

During the summer preceding his freshman year and a few days before the start of the fall semester, incoming freshmen come to the campus for an orientation program which is designed to acquaint them with life at Dickinson. Each freshman is assigned a faculty adviser who assists him in working out his academic program. Furthermore, selected upperclassmen are appointed as counselors in freshman residences. The Dean of Students, the Dean of Men, the Dean of Women, the College Chaplain, and the Placement Officer are available to all students for consultation on personal and extra-curricular matters.

Through the office of the Director of Counseling psychological tests are available to provide students with a self-appraisal and self-understanding in vocational, educational, and personal problems. These tests are voluntary and confidential.

HEALTH SERVICE

The College provides a Health Center staffed by four physicians retained by the College, a visiting psychiatrist, and four registered nurses who provide care for minor illnesses. The Carlisle Hospital is available for prolonged illnesses. In cases of lengthy illnesses, the student and his

parents or guardian must make arrangements for medical service and care, for college fees do not cover such cases, nor do fees provide for specialists or treatment, laboratory tests, x-rays, allergy shots, immunization shots, and so on.

The College requires that students avail themselves of an accident insurance policy, arranged through the Insurance Company of North America, to provide care beyond that provided by the Health Center. The College assumes no liability for expenses connected with accidents, and unless the student is already amply covered by insurance he must meet this requirement. A signed statement from parents and students is necessary for release.

PLACEMENT

The Placement Bureau aids seniors and alumni in solving employment problems and further assists undergraduates in seeking part-time work while in college. Vocational guidance materials and career information are kept current in the office of the Director of Counseling. Placement of teachers is coordinated through the Department of Psychology and Education. A Placement Library is maintained and active files trace alumni through ten years following graduation.

RELIGIOUS LIFE

From its founding, Dickinson College subscribed to the belief that the worship of God and the study of religion are integral to liberal education. In response to a heritage that recognizes freedom of worship, no student is ever denied admission to the College because of sect or creed. In addition to its courses in the Department of Religion, the College invites student participation in voluntary worship services on campus. An ecumenical Christian service is conducted each Sunday morning at 11 o'clock in the James Miller Mathers Memorial Theatre by the Chaplain and guest ministers. In addition to this worship opportunity there is a Jewish Service each Friday evening at 6:45, and Roman Catholic Mass is celebrated each Sunday at 6:15 P.M., in Durbin Oratory. Furthermore, the College enjoys a fine spirit of cooperation with the churches in the Carlisle community. On campus various denominational and religious fellowships are coordinated through the Office of the Chaplain and appropriate student-faculty committees. Action-in-Society is the major student fellowship which

serves the campus and community through various social service programs such as PEER, tutoring, work with mentally handicapped persons, tutoring, and Big Brother/Sister guidance projects.

HONORARY FRATERNITIES

The Pennsylvania Alpha chapter of Phi Beta Kappa was established at Dickinson College April 13, 1887. Election to membership is the highest academic honor available to a Dickinson student, and only those who rank among the top 10 per cent of their class are eligible.

Omicron Delta Kappa, established at Dickinson in 1927, is a national honorary for senior men of outstanding leadership ability. Other honorary societies are as follows: Tau Kappa Alpha, debating and oratory; Pi Delta Epsilon, journalism; Alpha Psi Omega, drama; Pi Gamma Mu, social science; Phi Mu Alpha Sinfonia, music; Delta Phi Alpha, German; Pi Delta Phi, French; Sigma Delta Pi, Spanish; Eta Sigma Phi, Classics; Raven's Claw, senior men; Skull and Key, junior men, and Wheel and Chain, senior women.

DRAMATICS

Mermaid Players, Dickinson's drama organization, presents three major productions each year. Other activities of the group include several "laboratory" plays, and a series of one-act Freshman plays. Opportunities for participation are unlimited, for there is much work to be done with scenery, makeup, coaching, and costumes.

MUSIC

Dickinson offers the student varied opportunities to participate in vocal and instrumental musical organizations. The College-Community Orchestra is open to students and musicians from the surrounding area; the Choir makes several off-campus appearances each year; the Chapel Choir is composed of about thirty voices, and the Collegium Musicum is a small, select group of experienced singers and instrumentalists chosen from the student body and faculty, the Men's Glee Club has a repertoire of college, sacred, folk, spiritual and show tunes.

DEBATE

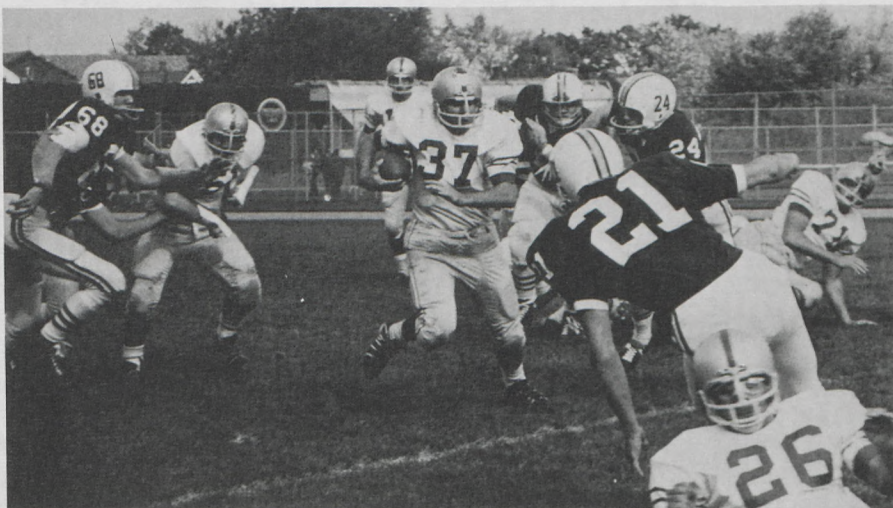
The Debate Council participates in an extensive program of inter-collegiate debating. All students are eligible for membership; those students with good scholastic averages are eligible to travel with the squad in tournaments scheduled with other colleges throughout the East and South.

ATHLETICS

Dickinson maintains varsity teams in football, soccer, cross-country, basketball, wrestling, swimming, rifle, baseball, track, tennis, golf, and lacrosse, and engages in contests with colleges who have the same persuasion toward athletics and academic policies. There is no subsidization of athletes, who are eligible for scholarships and grants-in-aid on the same terms as other students.

There is an extensive intramural sports program conducted at the College throughout the academic year, with competition in basketball, football, volleyball, softball, bowling, wrestling, tennis, table tennis, swimming, and track.

Dickinson women have an opportunity to participate in inter-collegiate sports—tennis and field hockey. Additionally, inter-class sports offer the athletically minded a chance to participate.



PUBLICATIONS

Dickinson publishes a number of publications during the year, some of them edited by students. The Dickinsonian is the college newspaper, published weekly; the Dickinson Alumnus is published quarterly, as is Dickinson Today; the Senator publishes announcements, scores, and late news; the college year-book is The Microcosm; The Mermaid's Tale is an information annual for old as well as new students.

RADIO STATION

The College radio station, WDCV, is entirely a product of student efforts. The station is wired to a special frequency which can be received on campus radios and provides a variety of musical and non-musical programs.

FRATERNITIES AND SORORITIES

Approximately fifty per-cent of the Dickinson men belong to the ten national fraternities who have chapters at Dickinson College—(Alpha Chi Rho, Beta Theta Pi, Kappa Sigma, Phi Delta Theta, Phi Epsilon Pi, Phi Kappa Psi, Phi Kappa Sigma, Sigma Alpha Epsilon, Sigma Chi, and Theta Chi). These fraternities are coordinated and regulated by the *Interfraternity Council*, which is composed of the executive board of the Council and the president and one elected representative from each member fraternity.

Two national sororities have chapters at Dickinson College—Pi Beta Phi and Chi Omega. There is one local sorority—Alpha Delta Epsilon. The *Panhellenic Council* is the governing body of the sororities and is composed of a president, a president-elect, and two delegates from each sorority.

INDEPENDENT STUDENT ORGANIZATION

Students who choose not to affiliate with any fraternity or sorority meet together periodically. Membership is open to all men and women.

DICKINSON COLLEGE RESIDENCE HALLS

Dickinson College provides a variety of living arrangements for students. The College will continue to initiate programs directed toward adding content and meaning to the typical residence hall living.



WOMEN'S RESIDENCE HALLS

Residences for women range in capacity from fourteen to one hundred seventy students. Freshmen, Sophomores and Juniors live in Adams, Drayer, Kisner-Woodward, McIntire, Montgomery, and Witwer Halls. Each of these residences has a House Resident and Student Counselors available for counseling and advising students. Juniors and Seniors live in Biddle, Mathews, Sellers, and Todd Houses.

Student Counselors are carefully selected junior and senior women assigned to live with small groups of students. The counselors work under the supervision of the Dean of Women and the Director of Counseling and form an important segment of the Counseling Services.

The governing body of the women's residence halls is the President's Council. Each individual living unit operates under the principle of self-regulation. Students assume the responsibility for their own governance and operation of the residence hall under guidelines established by the faculty of the College. These self-regulation procedures and guidelines are formulated in conjunction with the office of the Dean of Women.

All women residents live under a social honor code emphasizing individual responsibility in upholding rules relevant to the security of the living units and convenience of the residents. The mature individual is expected to accept the responsibility for upholding the rules on a personal and communal level.



MEN'S RESIDENCE HALLS

The residence hall complex for male students consists of Morgan Hall (freshmen) and Malcolm Hall (freshmen and independent upperclassmen); Honors House (senior involved in Honors work), Kisner-Woodward (Independent upperclassmen), ten fraternity houses (fraternity upperclassmen), and several small houses adjacent to the campus (upperclassmen).

The Dean of Men is assisted by a staff of two Hall Directors, sixteen upperclass counselors (carefully selected junior and senior men assigned to live with small groups of students), and seven housemothers in advising the living groups and in counseling individuals within each group. Of first priority is the goal to establish those living conditions compatible with the College's goals and the desired interpersonal relationships that contribute to the student's social growth.

All Men's Residence Halls at Dickinson operate under the principle of self-regulation. Students assume the responsibility for government and operation of the residence halls under guidelines established by the faculty of the College.

These self-regulation procedures and guidelines are formulated in conjunction with the office of the Dean of Men.



The Educational Program of the College

Summary Statement

Dickinson College offers the degree of Bachelor of Arts and the degree of Bachelor of Science. The latter is given only to students who major in biology, chemistry, physics, geology, or mathematics; the former to students who major in the humanities and social sciences.

The selection of a program will depend upon the student's interests and vocational plans. Programs in engineering, pre-medical courses, physics, and chemistry, for example, are the usual preparation for professional work in these fields. Students planning careers in law, business, or government service find majors in the humanities or social sciences of great value.

The purpose of a liberal education, however, is not primarily to provide vocational instruction, even though it may provide the best foundation for one's future vocation. Its purpose is to help students fulfill their responsibilities as sensitive persons and grow into cultivated and versatile individuals. Liberal education is concerned with cultural heritage, the world of thought, and the development of the full dimension of human potentiality.

It is necessary for most students to concern themselves with the problem of making a living. But this concern should not lead to early or narrow specialization. Undergraduates still have need of broadening the scope of human experience. Particular skills may afford readier access to routine employment, but positions of greater responsibility will be occupied by those who are equipped to think their way through new problems and to conceive of their functions in a larger context of time and space. Liberal education and vocational training may be the joint products of a common process, and the courses offered here should be selected with this larger perspective in mind.

Normally, students during the first half of their college program satisfy some, if not all, of the distribution requirements; choose their major field; and prepare for advanced work in these fields by taking the necessary prerequisites. A normal program consists of five courses each semester during the freshman and sophomore years and four courses each semester during the junior and senior years, which the student plans in consultation with his faculty adviser. Special advisers are available for preprofessional programs such as law, medicine, theology, and engineering.

In addition to the normal course offerings Dickinson offers a rich program of Independent Study and Research. A large part of a student's education can be spent in specially designed programs of study initiated by himself.

Finally, the College encourages study abroad both through its own summer and year-round programs and through cooperative efforts with other selected programs such as The Institute of European Studies.

Graduation Requirements

A student must complete thirty-six courses with a cumulative average of 2.00. Thirty-four of these courses, including all required courses and all courses credited toward Distribution and Field of Concentration Requirements, must be passed. In addition the Institutional Testing program of the Graduate Record Examinations must be taken whenever offered by the College.

A student must fulfill the requirements listed under General Requirements, Distribution, and Fields of Concentration.

A student must complete a minimum of four semesters (16 courses) of study in residence, including at least six of the last eight courses immediately preceding graduation. Work completed under programs of study such as the Binary Engineering Program, the Center for International Studies in Bologna, the Washington Semester, and the Asian Studies—University of Pennsylvania will be credited toward the requirement that six of the last eight courses be work in residence.

General Requirements

ENGLISH COMPOSITION: All students must complete English 101, unless given advanced placement or transfer credit. The

Department of English may exempt entirely from English Composition those students who demonstrate requisite ability.

LANGUAGE REQUIREMENTS: A candidate for a degree is required to complete work in a foreign language, classical or modern, through the intermediate level. A degree candidate whose native tongue is not English may be relieved of this requirement by action of the Foreign Students Committee and the Dean of the College. In such cases the Dean of the College shall notify the student of the fact in writing and send a copy of the notification to the Registrar and to the student's adviser.

Any student entering a course in a foreign language which he has studied for two or more years in a secondary school must take the appropriate College Entrance Examination Board Achievement Test. The student will be placed in the appropriate college course on the basis of the score he achieves on this examination. He may be excused from the language requirement on the basis of a sufficiently high placement score, with the permission of the Departments of Classical Studies or Modern Languages. A student who is not qualified by his placement score to continue the foreign language which he offered for entrance at or above the 102 level, and who does not elect to begin a new language, must satisfactorily complete course 101 in his chosen language without credit. Normally this should be accomplished prior to the opening of the fall semester.

A student who is qualified by placement for enrollment at any given level, but who is unable to work effectively at that level, may (at any time within the first thirty calendar days of the semester) with the concurrence of his instructor and adviser drop back one level without penalty except that students who shift from 102 level to the 101 level must carry the latter course without credit toward graduation.

PHYSICAL EDUCATION: Satisfactory completion of four semesters of physical education or two years of Military Science leadership laboratory (or any combination thereof up to four semesters). This requirement may also be met by one year of active military

service. Six months of active military service may be counted in satisfaction of two of the four semesters of physical education.

Every student who is not enrolled in the R.O.T.C. program and who has not completed his physical education requirement must register for physical education unless excused in writing by the Dean of the College. No student may enroll for more than one course in physical education in any one semester.

The physical education requirement *must* be met by the end of the junior year except in the case of transfer students. If at the end of any semester it becomes apparent that a student will be unable to meet the requirement of four semesters of physical education (or combination of physical education, military science, and/or active military service) by the end of his junior year, the student will be required to withdraw from college. Any such student will not be eligible for readmission until the end of the next academic semester (excluding summer sessions); any subsequent failure in physical education will result in his being required to withdraw a second time, and he will not be eligible for readmission.

Distribution Requirements

The fundamental presupposition of the Distribution requirements is that every liberally educated man needs some systematic exposure to each of the three major divisions—humanities, social sciences, and natural sciences—and an in depth awareness of non-Western culture. (English 101, elementary and intermediate foreign language courses, and such other courses as may be designated by the department concerned, cannot be used or counted toward fulfillment of distribution requirements.)

DIVISION I—Humanities—three courses

1. One course from the Department of Philosophy or the Department of Religion, or Humanities 101.
2. One course in literature from the following departments or areas: Classical Studies, English, Modern Languages, or Humanities 101.

3. One course from the following departments: Fine Arts, Music, and Dramatic Arts.

DIVISION II—Social Sciences—three courses

Any three courses from the disciplines of Economics, History, Political Science, Psychology, Social Science, and Sociology-Anthropology with the condition that no more than one course in the same discipline may be counted toward fulfilling the requirement.

DIVISION III—Natural Sciences and Mathematics—three courses, including a two-course laboratory sequence from one of the following two groups and one course from the opposite group:

1. Departments of Biology, Geology, Mathematics, or Science.
2. Departments of Chemistry, Physics and Astronomy, Mathematics, or Science.

NONWESTERN STUDIES—one course in nonwestern studies selected from the following list (this course may also be counted as one of the courses required under Division I or II):

Economics 349	Political Science 347, 348
English 310	Religion 111, 112, 311, 312
History 119, 120	Social Science 104
Philosophy 234	Sociology 230, 240, 307, 365

Field of Concentration Requirements

THE FIELDS OF CONCENTRATION consist of a required major in one major discipline (e.g. biology, French, etc.) and an optional minor. The required major consists of nine or ten courses of academic work in the discipline (as specified by the department). In addition to these courses the department may, with the concurrence of the Academic Program Committee, prescribe additional courses in related fields. The optional minor consists of six courses of academic work in the discipline (as specified by the department). If a student completes a minor in one or more

fields of concentration, this fact will be noted on his permanent record.

The major field of concentration will normally be chosen during the second semester of the student's sophomore year, but application to a department for acceptance as a major may be made any time in the first two years. Acceptance of a student as a major is determined by the department concerned on the basis of stated criteria. The department then assigns the accepted student to an adviser, using the student's stated preference as one of the bases for assignment. A student who is not accepted for a major field of concentration by the end of his sophomore year will be granted an additional semester in which to qualify. If at the end of this additional semester he has still not been accepted, he will be required to withdraw from college without the privilege of readmission.

If a student intends to major in more than one department he must secure approval of each department. His program shall then be developed in consultation with both departments and must be approved by both, and he shall therefore be advised jointly by a member from each department. Should a student wish at any time to change his major, he must be accepted by the new department in accordance with normal procedures for declaring a major. The Registrar's Office will then notify the first department of the student's decision no longer to be one of its majors.

The same course may not be counted for more than one major, nor may it count for both a major and a minor. Supporting courses in another department required as part of a departmental major are not affected by this rule.

Candidates for the degree of Bachelor of Science are required to major in Biology, Chemistry, Geology, Mathematics, or Physics. Candidates for the degree of Bachelor of Arts also may major in these subjects if they so desire.

Independent Studies, Independent Research, and Honors in a Discipline*

Dickinson recognizes the wide variation of interests, motivation, and abilities in its student body and believes that its academic program must provide options which meet these diverse needs. Accordingly, it encourages students with the requisite ability and motivation to undertake self-directed programs of study under the guidance of faculty members.

The following options compose the overall program of independent studies and research available in each of the academic programs which offer either a major or a minor. The precise options may vary, however, from program to program. In addition, Independent Study is available in Classical Studies, Computer Science, Dramatic Arts, Italian.

** The term 'discipline' shall be understood to mean any academic program which offers either a major or a minor.*

FRESHMAN INDEPENDENT STUDY. Freshmen who, on the basis of advanced placement, have qualified for credit in an introductory course (except English 101, foreign-language courses below 230, and such other courses as may be designated by the departments) and desire to work more extensively at the survey or principles level of a discipline may enroll for a tutorially directed course or half-course in independent study within the same body of knowledge.

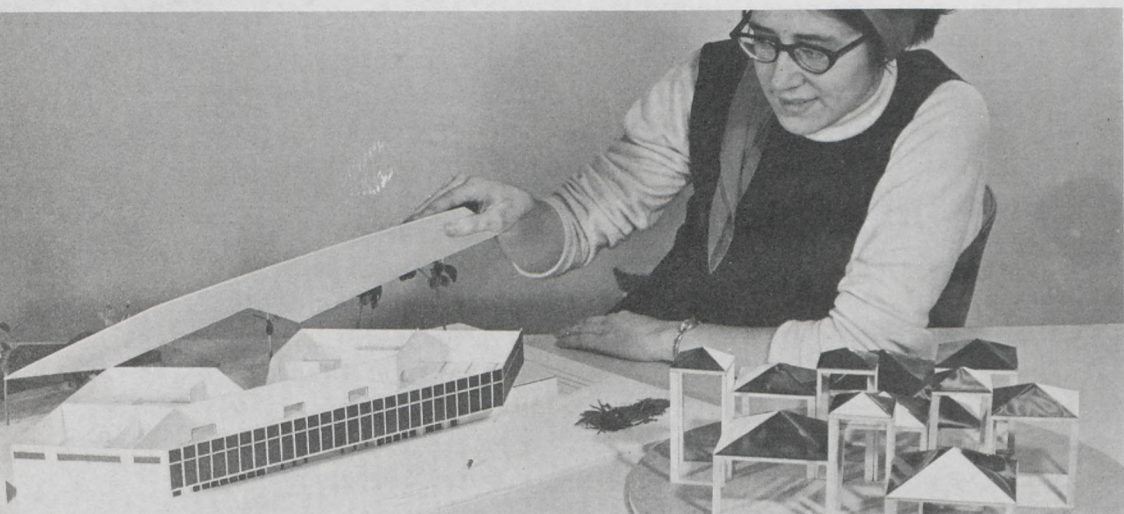
INDEPENDENT STUDY FOR SOPHOMORES, JUNIORS AND SENIORS. Independent studies allow a student to pursue systematically an academic interest outside the listed course offerings. The study may include experimental work (in the sciences), reading, several short papers, a single paper, or any other device mutually acceptable to the supervising Faculty members and the student. The work may be supervised by one instructor or several instructors from one department or several departments. Such interdepartmental studies must be approved beforehand by the Academic Program Committee. Sophomores may undertake one Independent Study per semester. Juniors and Seniors may undertake two such courses per semester. To be eligible, the student must have a cumulative average of 2.0 or the permission of the Academic Standards Committee.

INDEPENDENT RESEARCH FOR JUNIORS AND SENIORS. Independent research, like independent study, allows a student to pursue an academic interest beyond the listed course offerings, but this pursuit must culminate in an original contribution to a discipline, whether in the form of fully supported conclusions or in the form of a creative effort. Although supervised by faculty from one department or several departments, the work is to be largely self-initiated and self-directed—an introduction into research and practice in presenting the results of an investigation. Conclusions must be presented for evaluation no later than one (1) month prior to the student's graduation. The program may be elected (maximum credit: four full courses per semester) for the junior year, the senior year, or both. In order to register for

the program, special permission is required from the Committee on Academic Standards for students with less than a 3.00 average in the department or departments supervising the Independent Research. Programs of independent research involving more than two such courses per semester must be approved by the Academic Program Committee. Interdepartmental research must be supervised jointly by the respective faculty members and must also be approved by the Committee on Academic Program.

INTEGRATED INDEPENDENT STUDY AND/OR INDEPENDENT RESEARCH FOR JUNIORS AND SENIORS. This is a one or two-year program in any approved combination of integrated independent studies and/or independent research. The program, as developed by the student in consultation with the faculty concerned shall be presented to the Committee on Academic Program for their approval and review.

COURSE-RELATED STUDY. Independent work of high quality done in conjunction with a regular course may be recognized by a letter of evaluation prepared by the instructor and incorporated in the student's permanent record.



Field of Concentration Programs

When two course numbers, followed by a single description, are separated by a comma, either course may be taken without the other, although the two are normally taken together as a year-course.

When two course numbers, followed by a single description, are separated by a comma and preceded by an asterisk, the first course may be taken without the second, although the two are normally taken together as a year-course. The first course, however is a prerequisite for the second.

When two course numbers, followed by a single description, are separated by a hyphen, the work of the two semesters constitutes an integral, indivisible year-course in which credit will not be given for the work of a single semester.

American Studies

Professor Gates, *Coordinator*

An interdisciplinary program designed to give a thorough coverage of the interrelationship of influences shaping American civilization and to appraise America's growing impact upon the rest of the world.

*490, 491 SEMINAR IN AMERICAN STUDIES Subjects for discussion may include any of the following: Puritanism; The American Enlightenment; The Frontier as Place and Mind; The Immigrant in America; Transcendentalism; Urbanism; The Welfare State; Pragmatism; Elite, Popular, and Mass Cultures; Foreign Views of American Civilization; Ideals and Realities in American Life, Thought and Art. Such selected topics, varying from year to year, will be explored in order to integrate and relate the various disciplinary approaches. *Prerequisite: Major or minor in the program or permission of the instructor.*

MAJOR: ten courses from the list of courses creditable toward American Studies including: English 311, 312; History 117, 118; Political Science 211; one course in Economics, Fine Arts, or Religion; and American Studies Seminar 490, 491.

MINOR: six courses from the list below including American Studies Seminar 490, 491.

NOTE: Courses carrying credit toward an American Studies major or minor:

American Studies 490, 491	Seminar
Economics 121	Principles of Economics
Economics 250	Social Control of Business
Economics 253	The Economics of Labor
English 311, 312	Survey of American Literature
English 401	Seminar in American Literature
Fine Arts 304	American Art
History 117, 118	American History
History 349	American Intellectual & Social History
*History 387	American Constitutional History
Political Science 211	American Government
Political Science 341	American Political Thought
*Political Science 345	Constitutional Law
Religion 313	Varieties of Religion in American Life

**Either History 387 or Political Science 345 may be chosen but not both.*

Biology

Professor Jeffries

Associate Professors Biebel, B. McDonald, and D. McDonald,
Chairman

Assistant Professors Lane, Meyer, and Voris

The Department of Biology seeks to provide the liberal arts student with a broad view of the principles and functions of animal and plant life. The beginning course can be a terminal course but is required of all students intending to major or minor in biology.

Elective courses, more specialized, are designed to introduce major concepts and experimental methods. The aim in these courses is to provide suitable preparation for students who plan

to attend graduate school, or the professional schools of medicine, dentistry, or allied fields, as well as for those who do not anticipate undertaking post-graduate education. A special effort is made to develop research interest in seminar and independent studies.

111, 112. GENERAL BIOLOGY Biological principles with special emphasis on the physiology of animals and plants. Recent experiments in physiology, embryology, bacteriology, and genetics are discussed. Three hours' classroom and three hours' laboratory a week.

213. CYTOLOGY An introduction to the structure and function of cells. Laboratory work will include microtechnique of various types, such as sectioning and staining of tissues, radioautography, and photomicrography. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 111, 112 and Chemistry 131, 132.*

214. ECOLOGY The study of the structure and function of ecosystems; the physical and biotic factors affecting the evolution, behavior, and patterns of distribution of organisms (plants, invertebrates, vertebrates); with emphasis on the ecophysiological mechanisms which permit optimum interaction between organisms and the environment. The laboratory consists of the development of field techniques, stressing the field ecology of the eastern deciduous forest. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 111, 112.*

217. GENETICS Principles of heredity and their impact on population dynamics, evolution, and human society. Laboratory projects are designed to acquaint students with modern techniques of conducting genetic experiments with living organisms. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 111, 112.*

218 EMBRYOLOGY The experimental approach to the study of animal development. Two hours' classroom and four hours' laboratory a week. Open to Freshmen with permission of the instructor. *Prerequisite: 111.*

221. INVERTEBRATE ZOOLOGY Principles of structure, classification, evolution, ecology, physiology, and the development of invertebrates. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 111, 112.*

222. FIELD STUDY OF PLANTS A systematic survey of the plant kingdom through the collection and study of living plants. Frequent field trips are conducted as weather permits. An herbarium of named plants is prepared. Emphasis will be placed on the diverse features of plants which permit effective study of fundamental biological problems. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 112.*

223. NON-VASCULAR PLANTS: STRUCTURE AND FUNCTION An integrated study of morphology and physiology of lower plants. Emphasis will be placed on developmental physiology of selected types in culture. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 112.*

225. VASCULAR PLANTS: STRUCTURE AND FUNCTION An integrated study of anatomy, morphology, and physiology of higher plants. Emphasis will be placed on growth and development and their control. Two hours' classroom, and four hours' laboratory a week. *Prerequisite: 111, 112.*

226. MICROBIOLOGY The taxonomy, physiology, and heredity of bacteria, molds, and viruses. Laboratory projects are designed to provide technical competence in handling micro-organisms. Two hours' classroom and four hours' laboratory a week. Open to Freshmen with permission of the instructor. *Prerequisite: 111.*

232. MOLECULAR BIOLOGY A biochemical approach to the study of the molecules of the living cell and their interactions. Included will be studies of energy relationships, metabolic pathways, biosynthesis of enzymes and nucleic acids, and the genetic code. The biological properties of macromolecules will be discussed as relating to their chemical structure. Two hours' classroom a week. *Prerequisite: 111, Chemistry 251, 252; Physics 111 or 131, or permission of the instructor. One-half course.*

232L. MOLECULAR BIOLOGY LABORATORY Experiments will involve the use of biochemical techniques in the study of biological material including the use of radioactive tracers. Concurrent registration in 232 is required. Four hours' laboratory a week. *One-half course.*

233. PHYSIOLOGY A study of physiological mechanisms in the animal kingdom, stressing the physical and chemical basis of biological activities. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 111, 112.*

234. VERTEBRATE ZOOLOGY Examination of vertebrate evolution, development, structure, and physiology by the comparative method. Two hours' classroom and four hours' laboratory a week. Open to Freshmen with permission of the instructor. *Prerequisite: 111.*

312. SEMINAR Reading, conference, writing, and oral presentation of reports. *Prerequisite: Permission of the instructor. One-half course.*

MAJOR: seven courses, including Biology 111, 112 and one upper level course in Botany. In addition, Chemistry 131, 132, 251, 252; Math 131, 132; and Physics 111, 112 or 131, 132 are required. The seven courses required for the major may not include more than one course in Independent Study.

MINOR: six courses, including Biology 111, 112. In addition, Chemistry 131, 132 are required.

NOTE: A student intending to receive certification from the Pennsylvania Department of Public Instruction at the time of graduation *must* include within his program a course in Botany, a course in Genetics and a course in Ecology. As preparation for graduate work in biology, some familiarity with one or more of the following foreign languages is recommended: French, German, or Russian.

Chemistry

Professors J. Benson, *Chairman*, Crist and Rogers
Associate Professors Roper and Schearer
Assistant Professors Leyon and Sheeley

The courses offered by the Department are designed to meet the needs of students who are preparing for graduate work, teaching, industrial work and medicine. A course in general chemistry is offered for students who wish to acquire a background in chemistry but who do not plan a career in science. Students who plan to major in chemistry should have as strong a high school preparation in science, English, foreign language and mathematics as possible.

Dickinson College offers a program of study in chemistry that has been approved by the American Chemical Society; this program is designed for students who plan graduate work in chemistry (see Note 2 following course descriptions).

*103, 104. GENERAL CHEMISTRY Basic principles in chemistry; general study of the chemical properties and reactions of substances. A terminal nonlaboratory course for nonscience students. Three hours' classroom. *This course will not satisfy the one year laboratory science distribution requirement. It will, however, count as the third required course in Distribution III Group (2) for candidates for the A.B. degree who have met their laboratory science requirement in Biology or Geology. Please read Note 1.*

*111, 112. GENERAL CHEMISTRY Similar to *103, 104 except that it includes two hours' laboratory a week. (111, 112 or 131, 132 will meet the one year laboratory science requirement for candidates for the A.B. degree. Note, however, that 111, 112 does not count toward major or minor requirements in Biology or Chemistry.) *Please read Note 1.*

*131, 132. **PRINCIPLES OF CHEMISTRY** Atomic and molecular structure, chemical bonding, physical and chemical equilibria, the kinetics of chemical reactions, the periodic table, and introductory descriptive chemistry of the elements. The laboratory work consists of elementary quantitative analysis in the first semester and qualitative analysis in the second semester. Three hours' classroom and three hours' laboratory a week. *Please read Note 1.*

*251, 252. **ORGANIC CHEMISTRY** The chemistry of carbon compounds. The various functional groups and their transformations are studied systematically. Basic reaction mechanisms and the formulation of synthetic schemes are emphasized. Laboratory work involves the preparation and analysis of organic compounds. Three hours' classroom and four hours' laboratory a week. *Prerequisite: 132.*

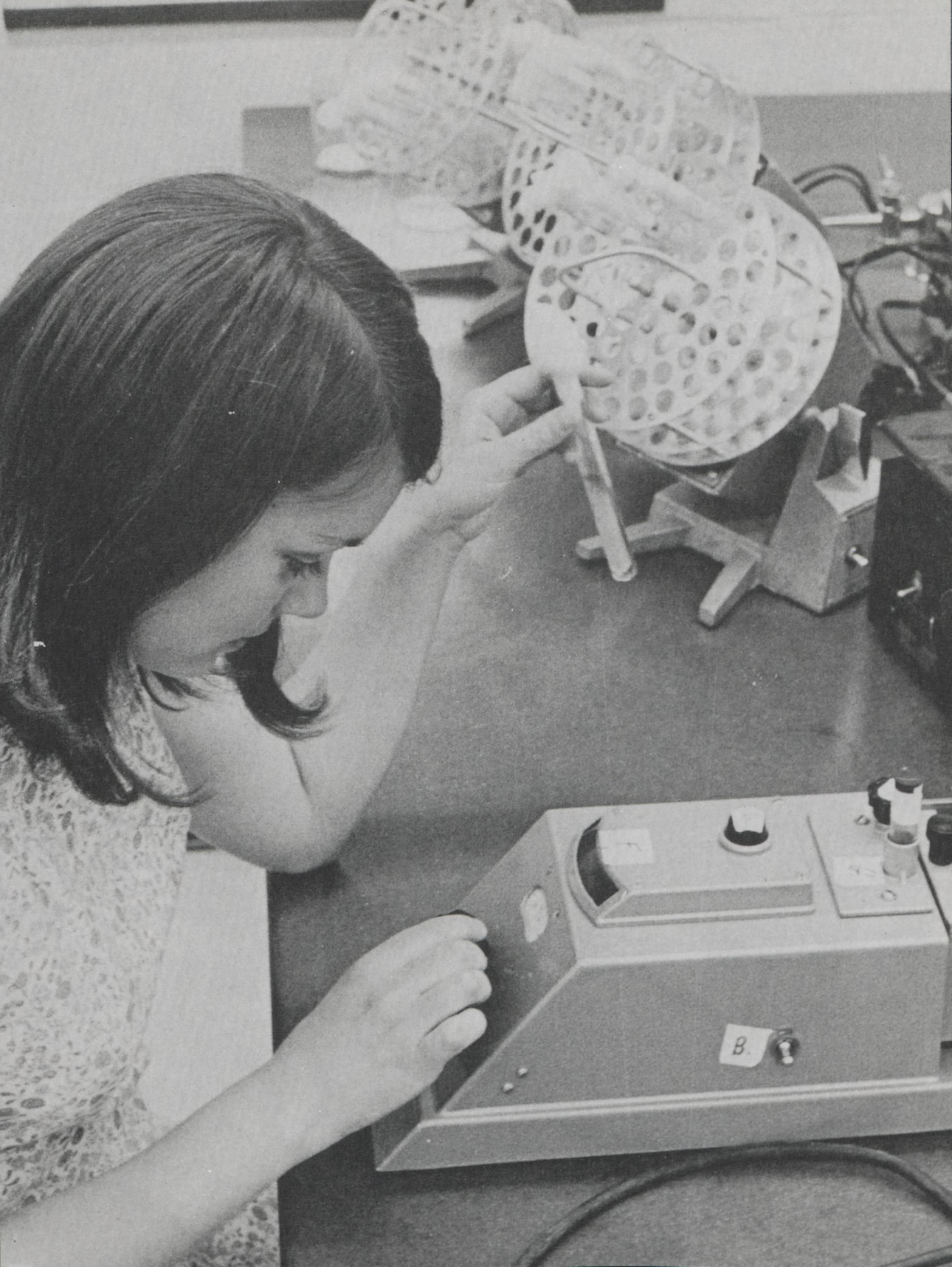
*335, 336. **PHYSICAL CHEMISTRY** The fundamentals of chemical thermodynamics, kinetics, and quantum mechanics are introduced as a unifying basis for the discussion of chemical and phase equilibria, electrochemistry, reaction mechanisms, spectroscopy, and atomic and molecular structure. Three hours' classroom and four hours' laboratory a week. *Prerequisite: 131, 132, Physics 111, 112 or 131, 132, and Mathematics 131, 132.*

353. **ADVANCED ORGANIC LABORATORY METHODS** Advanced laboratory techniques with emphasis on classical and modern spectral methods of identification of organic compounds. Application of the chemical literature to laboratory practices is emphasized. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 252.*

362. **ANALYTICAL CHEMISTRY** Fundamental principles and concepts as applied to analytical problems. Solvent extraction, ion exchange, chromatography, spectrophotometry, polarography, radiochemistry, potentiometry, flame photometry, thermal analysis and other methods of analysis are emphasized. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 336 or concurrent registration therein.*

431. **INORGANIC CHEMISTRY** Atomic and molecular structure, principles of chemical bonding, the periodic table, transition metal chemistry and chemistry of selected elements. Three hours' classroom a week. *Prerequisite: 336.*

483. **ADVANCED PHYSICAL CHEMISTRY** Selected topics in advanced physical chemistry with extensive use of current literature in the field. Topics chosen from quantum chemistry, statistical thermodynamics, catalysis, molecular spectra, molecular structure, etc. Three hours' classroom a week. *Prerequisite: 336 or permission of the instructor.* Fall semester 1969: Theory of Methods of Separation.



486. ADVANCED ORGANIC CHEMISTRY Selected topics in advanced organic chemistry not extensively covered in 251, 252. Topics chosen from heterocycles, natural products, photochemistry, reaction mechanisms, introduction to biochemistry, drug action, etc. Three hours' classroom a week. *Prerequisite: 252.*

MAJOR: nine courses, including 131, 132, 251, 252, 335, 336, and at least two courses from 353, 362, 431, 483, or 486. The remaining course is an elective from the five listed, independent study or independent research.

MINOR: six courses, including 131, 132.

NOTE 1: Because of the similarity in course content, students will not receive graduation credit for both 103/111 and 131 or for both 104/112 and 132.

NOTE 2: Any student desiring departmental recommendation and certification by the American Chemical Society for graduate work (other than medicine) should satisfactorily complete 131, 132, 251, 252, 335, 336, 353, 362 and 431; one course of independent study or independent research with laboratory; and one course from 483, 486, advanced physics, or advanced mathematics. Additional requirements are mathematics through simple differential equations and the ability to read simple scientific German or Russian with the aid of a dictionary.

Classical Studies

Professor Lockhart*

Associate Professor Nodder, *Chairman*

Assistant Professor Sider

Instructor Phillips

The goal of the Department of Classical Studies is to enable the student to read chosen portions of Greek and Latin literature and to acquaint him with the cultural aspects of the Greek and Roman civilizations and their influence on the civilizations of the Western world.

The need for teachers of Latin in high schools is acute and opportunities for teaching on the college level are great. Many students have chosen to major in classical languages as preparation for professional training, law school, theological seminary and even medical school.

* On leave, 1969-1970.

Dickinson College is affiliated with the Intercollegiate Center for Classical Studies in Rome. Through its facilities Latin majors may spend a semester of either the junior or senior year studying classical life within sight of the monuments themselves. This program, administered through Stanford University, is open only to students with a B average. Scholarships are available, and full credit is given by the college for work taken at the Center. Majors are thus afforded a chance to study with some of the country's finest professors of ancient literature, history and archaeology.

CLASSICAL STUDIES

251, 252. **HELLENIC HISTORY** First semester: a study of Minoan and Mycenaean civilization, the Homeric problem and rise of the polis, the Persian Wars, and the development of Athenian democracy to 478 B.C. Second semester: Greek history from 478 to 323 B. C. *Alternates with 253, 254. To be given in 1970-1971.*

253, 254. **ROMAN HISTORY** First semester: A study of the Roman state from prehistoric times to the end of the Republic. Second semester: Roman history from the establishment of the Principate to the death of Justinian, 565 A. D. *Alternates with 251, 252. To be given in 1969-1970.*

GREEK

101-102. **FIRST-YEAR GREEK** Drill on the fundamentals of Greek grammar and the study of vocabulary. Selected prose is read in the second semester.

211, 212. **SECOND-YEAR GREEK** First semester: readings in Attic prose, with emphasis on Plato. Second semester: The reading of selected Greek tragedies. *Prerequisite: 101-102 or the equivalent.*

233. **HERODOTUS** A study of Herodotus as historian. *Prerequisite: 211 or 212 with a grade of at least C. To be given in 1969-1970.*

234. **HOMER** A study of the Homeric epics. *Prerequisite: 211 or 212 with at least C. To be given in 1969-1970.*

391, 392. **SEMINAR: GREEK DRAMA** A study of the Greek theater, with special emphasis on tragedy and comedy as literary types. *Given in alternate years. To be given in 1970-1971. Prerequisite: 233 or 234 or permission of the instructor.*

393, 394. RESEARCH SEMINAR A reading, research, and conference course on selected areas of Greek literature. *Given in alternate years. To be given in 1970-1971. Prerequisite: 233 or 234 or permission of the instructor.*

MAJOR: ten courses numbered 200 or above, including Greek 211, 212, 233, and 234. Classical Studies 251 and 252 may be counted toward this requirement; Philosophy 391, 392, 393, or 394 may be substituted for either of these Classical Studies when the subject matter is Plato.

MINOR: six courses numbered 200 or above, including Greek 211, 212, and 233 or 234. Classical Studies 251 or 252 may be counted toward this requirement, but not both.

NOTE: It is recommended that majors elect Fine Arts 202.

LATIN

101-102. FIRST-YEAR LATIN Drill in the fundamentals of Latin grammar and vocabulary. Selected prose from the Roman Republic is read in the second semester.

111, 112. SECOND-YEAR LATIN Review of Latin syntax. Readings from Cicero in the first semester, Vergil's *Aeneid* in the second semester. *Prerequisite: 101-102 or the equivalent.*

233. ROMAN HISTORIANS Readings from Roman historians, with particular emphasis on Livy. *Prerequisite: 111 or 112.*

234. LATIN POETRY Horace, *Odes* and *Epodes*; Catullus; the Elegists; Ovid. *Prerequisite: 111 or 112.*

331. CICERO Essays and letters, with stress on intellectual life of the age of Cicero. *Given every third year. To be given in 1969-1970. Prerequisite: 233 or 234.*

332. VERGIL *Aeneid VI-XII*, studied in the light of ancient poetical theory and the epic tradition. *Given every third year. To be given in 1969-1970. Prerequisite: 233 or 234.*

341. CAESAR The *Bellum Civile*, with special stress on Caesar as prose stylist. The nature and purpose of the Commentaries as a literary type. *Given every third year. To be given in 1971-1972. Prerequisite: 233 or 234.*

342. LUCRETIUS The philosophy and poetry of the *De Rerum Natura*. *Given every third year. To be given in 1971-1972. Prerequisite: 233 or 234.*

351. JUVENAL The nature of "rhetorical" poetry. Careful reading of the *Satires*. *Given every third year. To be given in 1970-1971. Prerequisite: 233 or 234.*

352. TACITUS Readings in the *Annals* and shorter works. Tacitus as historian and historical source. *Given every third year. To be given in 1970-1971. Prerequisite: 233 or 234.*

391, 392. THE LATIN LANGUAGE First semester: introduction to historical grammar and syntax. Second semester: the syntax of Classical Latin. *Given in alternate years. To be given in 1970-1971. Prerequisite: Permission of the instructor; 233 or 234.*

393, 394. SEMINAR Readings and conferences in a special topic of Latin literature. Introduction to research in classical studies. *Given in alternate years. To be given in 1969-1970. Prerequisite: Permission of the instructor; 233 or 234.*

MAJOR: ten courses numbered 111 or above, including 111, 112, 233, 234; or the equivalent of these courses. Classical Studies 253, 254 may be counted toward this requirement.

MINOR: six courses numbered 111 or above, including 111, 112, 233, or 234. Classical Studies 253 or 254 may be counted toward this requirement, but not both.

Economics

Associate Professors Houston, *Chairman*, and King
Assistant Professors Mach and Stone

The Department of Economics offers courses designed to facilitate an understanding of the structure and function of the United States economy and of other economic systems. Through the study of economic methodology, of various theories, and of empirical data the student should gain a knowledge of essential economic processes and should gain insight concerning important current issues and policy problems. A student majoring in the field may obtain a background for business or the pre-

requisites for graduate study in economics, business, law, and allied fields. Other students will find that courses in economics complement their studies in other areas, especially in history, political science, sociology, and mathematics.

112. CONSUMER ECONOMICS A study of the consumer and his use of income. An analysis of the major factors in personal finance such as borrowing, investing, paying taxes, and spending for consumption. *This course counts toward the major only if taken during the Freshman or Sophomore year.*

121. INTRODUCTION TO ECONOMICS A study of the fundamentals of economic analysis and of basic economic institutions. Emphasis is placed upon the structure of modern markets; upon the activities of market participants in the production, pricing, and consumption of goods; upon aggregate measures of economic activity, and determination of national income and its distribution into wages, rents, interest and profits. The monetary system and the role of government are studied; contemporary economic problems are appraised and alternative economic policies are analyzed. This course may be desirable preparation for courses above the 100-level. *This course counts toward the major only if taken during the Freshman or Sophomore year.*

122. WORLD ECONOMIC PROBLEMS A survey of current problems in economic development, economic systems, and international economics. Basic analytical tools are introduced and applied. Topics may include economic decision-making in traditional communities, how growth begins, basic structure of the Soviet economy, current economic reforms in the Soviet Union, why nations trade, balance of payments problems. *This course counts toward the major only if taken during the Freshman or Sophomore year.*

*229, 230. ACCOUNTING PRINCIPLES A course designed to give the student a general knowledge of accounting and of its use as a tool of management. Emphasis is placed upon the managerial approach to economic and financial analysis and upon interpretation after basic accounting techniques have been mastered. Fundamental problems of business finance, income tax, and automatic data-processing systems are considered in the second semester. *These courses do not count toward distribution requirements.*

235. BUSINESS ORGANIZATION AND FINANCE The forms of business enterprise compared in their legal status and economic importance; dominance of the corporate form of private enterprise; problems of administration and finance; investors rights and state control.

250. MARKET STRUCTURES AND PUBLIC POLICY Legal enforcement of competition. Interpretation and enforcement of the antitrust laws as they apply to various market structures. Control of public utilities and regulation of other non-competitive activities.

253. THE ECONOMICS OF LABOR A survey of the development and regulation of trade unions in the United States, with special reference to the institutional and theoretical background of collective bargaining wherein wages, hours, and other conditions of employment are determined.

268. AGGREGATE ECONOMIC THEORY A study of national accounting with emphasis on consumption, investment, and government expenditure patterns. Analysis of theories of income determination and of growth at the aggregate level as well as an examination of production flows among industrial sectors.

278. PRICE THEORY Supply and demand, production and costs, consumer behavior, market structure, resource pricing. Selected applications and extensions. *See Note 1.*

344. PUBLIC FINANCE A survey of the field of government finance—national, state, and local. Trends and purposes in government income and expenditures; analysis of deficit financing and taxation theory and practice; the relations of these aspects of finance to credit and price structures, business administration and the business cycle, as a factor in determining public policy.

347. MONEY AND BANKING A study of the role of money and credit in the United States economy. This includes an examination of the functions of money, the commercial banking system, the Federal Reserve System, and other domestic financial institutions. Various theories of money will be studied. The monetary and financial policies and practices of the Federal Reserve System and the United States Government will be analyzed and appraised.

348. INTERNATIONAL ECONOMICS Trade and factor movements, restrictions on international transactions, the balance of payments, the world monetary system, current policy problems. *See Note 1.*

349. ECONOMICS OF DEVELOPMENT An introduction to the study of less developed economies. Emphasis is on existing institutions and patterns of behavior, especially within traditional communities, although topics in development planning are included.

*361, 362. INTERMEDIATE ACCOUNTING PRINCIPLES A more advanced treatment of the material in Economics 229, 230, with increased emphasis on advanced accounting theory and techniques in conjunction with the managerial approach. Consideration of advanced problems in business

finance. *Prerequisite: 230. These courses do not count toward distribution requirements.*

375. BUSINESS CYCLES AND FORECASTING Theoretical analysis of business fluctuations; problems of the identification, measurement, and forecasting of cycles and of growth, with emphasis on recent experience. *See Note 1.*

376. CONTEMPORARY ECONOMIC SYSTEMS A comparison of the theoretical efficiency of capitalism and socialism; historical and descriptive studies of communistic and socialistic economic systems, including recent developments.

395, 396. STUDIES IN MODERN EUROPEAN ECONOMICS To be offered in Bologna only. *See Note 1.*

473. HISTORY OF ECONOMIC THOUGHT A critical presentation of significant economic theories from the beginning to the present time, viewed as an expression of the individuality of the great thinkers and of their historical background.

475. QUANTITATIVE ECONOMICS Selected topics in theoretical and applied economics, using mathematical and statistical techniques. *See Note 1.*

497, 498. SENIOR SEMINAR A reading, research, and conference course on selected economic topics. *See Note 1. One-half course per semester.*

MAJOR: nine courses in economics, including 268, 278, 497, and 498; also Mathematics 131 (or the equivalent) and Mathematics 221 (or the equivalent).

MINOR: Six courses, including either 268 or 278.

NOTES: 1. Each student should consult the Department concerning recommended preparation for courses above the 100-level, particularly for 278, 348, 375, 395, 396, 475, 497, and 498.

2. The student who expects to major in economics should elect Mathematics 221 (or the equivalent) early, preferably not later than the Sophomore year. Prospective majors, as well as those planning graduate study in economics or business, should consult the Department concerning other course options.

Education

See Psychology and Education

English

Professors Bowden, *Chairman*, Horlacher, Schiffman, Sloane, and Warlow
 Associate Professors J. Doeblor, B. A. Doeblor, and Wishmeyer
 Assistant Professors Hartshorn*, Rosen, Tirumalai, and Harms
 Instructor Bowie
 Teaching Fellow Gustafson

The language and literature of the Anglo-American tradition are studied historically, by types, and in conjunction with other arts and literatures. English majors should therefore take courses in art, history, music, philosophy, religion, and in foreign languages and literatures, both classical and modern. They should acquaint themselves with the best that has been thought and said and done in the world. English majors are afforded training in the basic disciplines of the field—history, criticism, research, and writing.

101. ENGLISH COMPOSITION A course in effective writing; a study of grammar, rhetoric, and selected literary forms. *Required of all Freshmen except those with advanced standing who have been exempted by the Chairman of the Department.*

211. SURVEY OF ENGLISH LITERATURE I The growth of literary types and values against the background of history, from earliest times to the eighteenth century. Intensive study of the major English poets, prose-writers, and dramatists, especially Chaucer, Spenser, Shakespeare, Bacon, Donne, and Milton. *Open to Freshmen.*

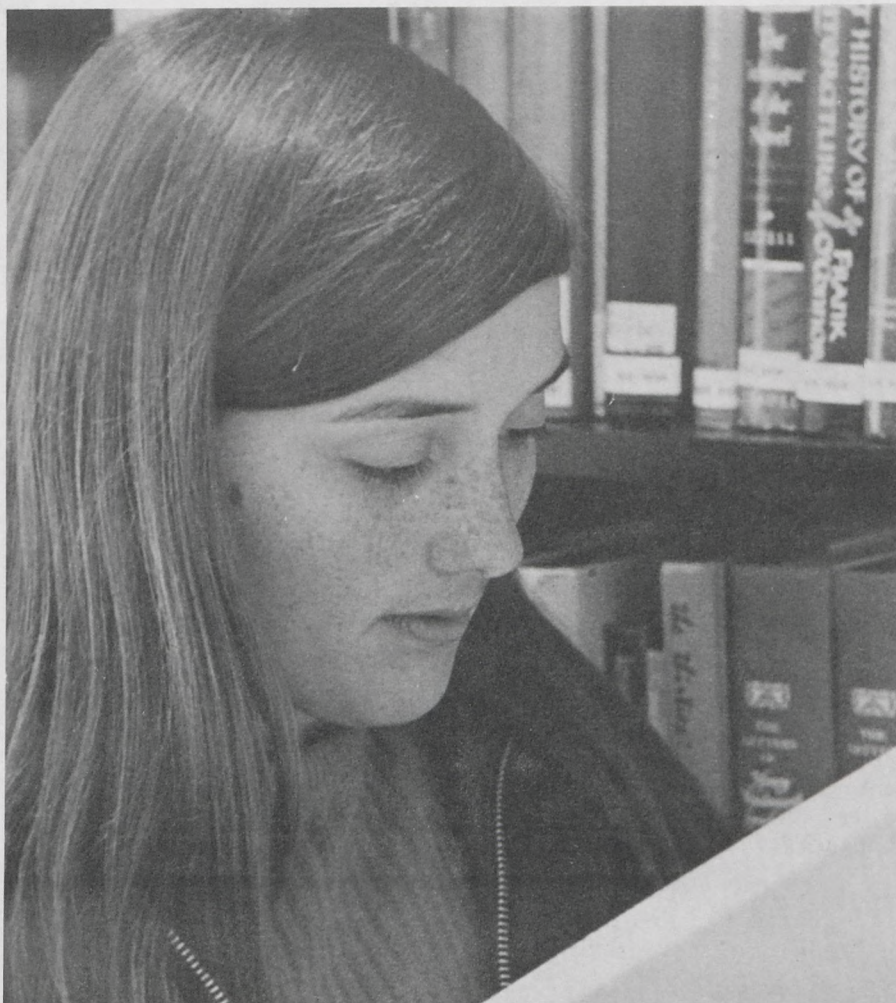
212. SURVEY OF ENGLISH LITERATURE II The growth of literary types and values against the background of history, from the eighteenth century to the present. Intensive study of the major English poets, prose-writers, and dramatists, especially Swift, Pope, Johnson and Boswell, the Romantics, the Victorians, Shaw, Yeats, and Eliot. *Open to Freshmen.*

213. LITERATURE OF THE WESTERN WORLD I Readings in English from a selected group of literary masters and masterpieces of the ancient and medieval periods with particular significance for Western culture, notably

* *On leave, 1969-1970.*

Homer, Herodotus, the Greek dramatists, Vergil, Medieval Epics, and Dante. *Open to Freshmen.*

214. LITERATURE OF THE WESTERN WORLD II Readings in English from a selected group of literary masters and masterpieces of the Renaissance and modern periods with particular significance for Western culture, notably Boccaccio, Chaucer, Erasmus, Racine, Montaigne, Rabelais, Cervantes, Molière, Voltaire, Goethe. *Open to Freshmen.*



225. **ADVANCED COMPOSITION** The techniques of purposeful writing, with special attention to the development of ideas and their critical appraisal through exposition. *Recommended for students preparing to teach. Open to Freshmen with advanced standing in English.*

230. **LITERARY SCHOLARSHIP AND CRITICISM** Discussion of literary background materials and critical texts. Training in the techniques of literary scholarship leading to the effective presentation of critical views.

235. **HISTORY OF THE ENGLISH LANGUAGE** The origins and growth of the English language from earliest times to the present; the sources of our vocabulary and the continuing processes of word creation and semantic change.

236. **STRUCTURE OF THE ENGLISH LANGUAGE** An intensive review of conventional grammar, an introduction to generative grammar, and a study of structural linguistics. *Recommended for language students and for those preparing to teach English.*

281. **CREATIVE WRITING** Directed practice in the techniques of short fiction. *Prerequisite: Permission of the instructor.*

310. **LITERATURE OF THE NON WESTERN WORLD** Reading in English from a selected group of literary masters and masterpieces of China, India, Japan, Persia, the Moslem and Hebrew worlds, including Confucius, Laotse, Li Po, Basho, the Upanishads, the Shah Namah, Hebrew scriptures, the Koran, and Persian poets. *Prerequisite: One course from any of the following: English 213 or 214; Philosophy 232; History 219 or 220; or permission of the instructor.*

311. **A SURVEY OF AMERICAN LITERATURE I** Literary trends from Puritan times to the Civil War, with emphasis on major writers from Poe to Whitman. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

312. **A SURVEY OF AMERICAN LITERATURE II** Literary trends from the Civil War to the present, with emphasis on major writers from Twain to Hemingway. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

330. **CLASSICAL AND BIBLICAL INFLUENCES IN ENGLISH LITERATURE** Selections from classical and Biblical literature with critical consideration of their use from the Middle Ages to the twentieth century. Emphasis on the nature and function of myth and the uses of literary forms. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

331. CHAUCER A study of Chaucer and his century, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*. *Prerequisite: 211, 212 or 213, 214.*

332. RENAISSANCE ENGLISH DRAMA The diversity of English drama from its medieval antecedents to the closing of the theatres in 1642, with emphasis on major figures such as Marlowe, Jonson, and Webster. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

340. THE AGE OF ELIZABETH A study of nondramatic literature in the Elizabethan period, with emphasis on major figures such as Sidney, Shakespeare, and Spenser. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

341. SHAKESPEARE I Early plays, comedies, and histories. *Prerequisite: Either 211 or 214.*

342. SHAKESPEARE II Problem comedies, tragedies, and romances. Offers a sampling of the principal critical approaches to Shakespeare, but primary emphasis is on the plays themselves. *Prerequisite: Either 211 or 214.*

353. ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY The chief writers and movements from the age of Donne and Jonson to the Restoration, exclusive of Milton. Outside readings in the literature of the period. *Prerequisite: 211, 212 or 213, 214.*

354. MILTON A detailed study of the poetry and prose of John Milton. *Prerequisite: 211, 212 or 213, 214.*

367. ENGLISH LITERATURE OF THE EIGHTEENTH CENTURY I Representative English writers and tendencies of the neoclassic Augustan period, with emphasis on Dryden, Swift, and Pope. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

368. ENGLISH LITERATURE OF THE EIGHTEENTH CENTURY II The later eighteenth century: sentiment and satire. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

370. THE ENGLISH NOVEL Advanced studies in the art of the novel, chiefly of the eighteenth and nineteenth centuries. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

371. ENGLISH LITERATURE OF THE ROMANTIC MOVEMENT

Major writers and characteristics of the Romantic movement in England in the late eighteenth and early nineteenth centuries. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

372. THE VICTORIAN AGE Major writers of the Victorian period, from Tennyson to Housman and Hardy. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

380. TWENTIETH CENTURY FICTION Novels and short stories representative of American, English, and continental achievements and trends. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

381. TWENTIETH CENTURY AMERICAN AND BRITISH POETRY Important American and British poets and poetic tendencies. *Students should have completed two semesters of English, preferably either 211, 212 or 213, 214.*

382. MODERN DRAMA The development of the contemporary theatre from Ibsen to the present, as seen in selected European, English, and American plays. *Prerequisite: 211, 212 or 213, 214; but may be elected concurrently with 212 or 214 by students who have a grade of at least B in 211 or 213.*

392. ADVANCED LITERARY CRITICISM Discussion of background readings in intellectual history relevant to the development of informed literary and critical judgments.

401. SEMINAR IN AMERICAN LITERATURE

403. SEMINAR IN ENGLISH LITERATURE, BEFORE 1800

404. SEMINAR IN ENGLISH LITERATURE, AFTER 1800

MAJOR: ten courses numbered 200 or above in departmental course work including either 211, or 212, or 213, or 214 in any combination; 341, or 342 or 403b; and one course from each of the following groups:

Group 1: 331, 332, 340, 353, 354, 403a, 403b, 403c

Group 2: 367, 368, 370, 371, 372

Group 3: 311, 312, 401a, 401b

Group 4: 380, 381, 382, 404b

Group 5: 230, 235, 236, 330, 392

Students contemplating graduate work in English should acquire some knowledge of two foreign languages, preferably French and German. A course in literature outside the English Department is also helpful.

In addition, students majoring in English are urged to enroll in History 243, 244, and in Fine Arts 101, 102.

Students who hope to receive departmental honors must elect 531, 532 (Independent Studies and Honors Course).

MINOR: six courses numbered 200 or above in departmental course work, including five courses in literature. Minors must elect 211 or 212, or 213, or 214, in any combination, and at least two courses from the following group: 311, 312, 331, 340, 341, 342, 353, 354, 367, 368, 371, 372, and 381.

TEACHER CERTIFICATION:

The English Department requires its majors who wish to secure teacher certification to schedule the following courses within the existing requirements:

- a. English 225 (to be substituted in lieu of one course in either Group 1 or 2)
- b. English 236 (taken as the Group 5 requirement, preferably prior to enrollment in the Professional Semester in Teacher Education)
- c. English 380, 381 or 382 (taken as the Group 4 requirement)

Additionally, students are urged to enroll in English 310 and in two half-courses in Public Speaking.

Fine Arts

Associate Professor Dennis P. Akin, *Chairman* and Sabin
Assistant Professor Van Buren
Instructor Davis

Courses in fine arts provide the student with objective methods of understanding the esthetic and historical significance of the visual arts. Departmental offerings should be elected, wherever possible, in conjunction with related courses in history, music, philosophy, religion, and classical, foreign, and English literature. Optional majors provide an art history emphasis or a balance between studio and art history. Each plan can lead to graduate study and careers in the visual arts.

101, 102. AN INTRODUCTION TO THE HISTORY OF ART A survey of painting, sculpture, architecture, and the minor arts created by the world's

leading civilizations. Relevant technical terms and objective methods of analysis are defined. In 101 examples are chosen from prehistoric, primitive, ancient, and medieval European art. In 102 the arts of Western Europe beginning with the Renaissance are considered.

202. ANCIENT ART The art and architecture of ancient Egypt, Mesopotamia, Greece, and Rome are considered with major emphasis devoted to the art of Greece and Rome. *Prerequisite: 101 or 102.*

203. MEDIEVAL ART European art and architecture of the Middle Ages, from the decline of the Roman Empire to the fourteenth century. Particular emphasis is placed on early Christian, Romanesque, and Gothic art. *Prerequisite: 101 or 102.*

204. NORTHERN RENAISSANCE ART A study of the art of Northern Europe in the fifteenth and sixteenth century, with particular emphasis on Germany and Flanders. Special consideration is given to the work of Dürer, Grünewald, Cranach, and Altdorfer, and to that of Hubert and Jan van Eyck, Roger van der Weyden, Memling, Bosch and Bruegel. French and English art and architecture of the period will also be considered. *Prerequisite: 101 or 102.*

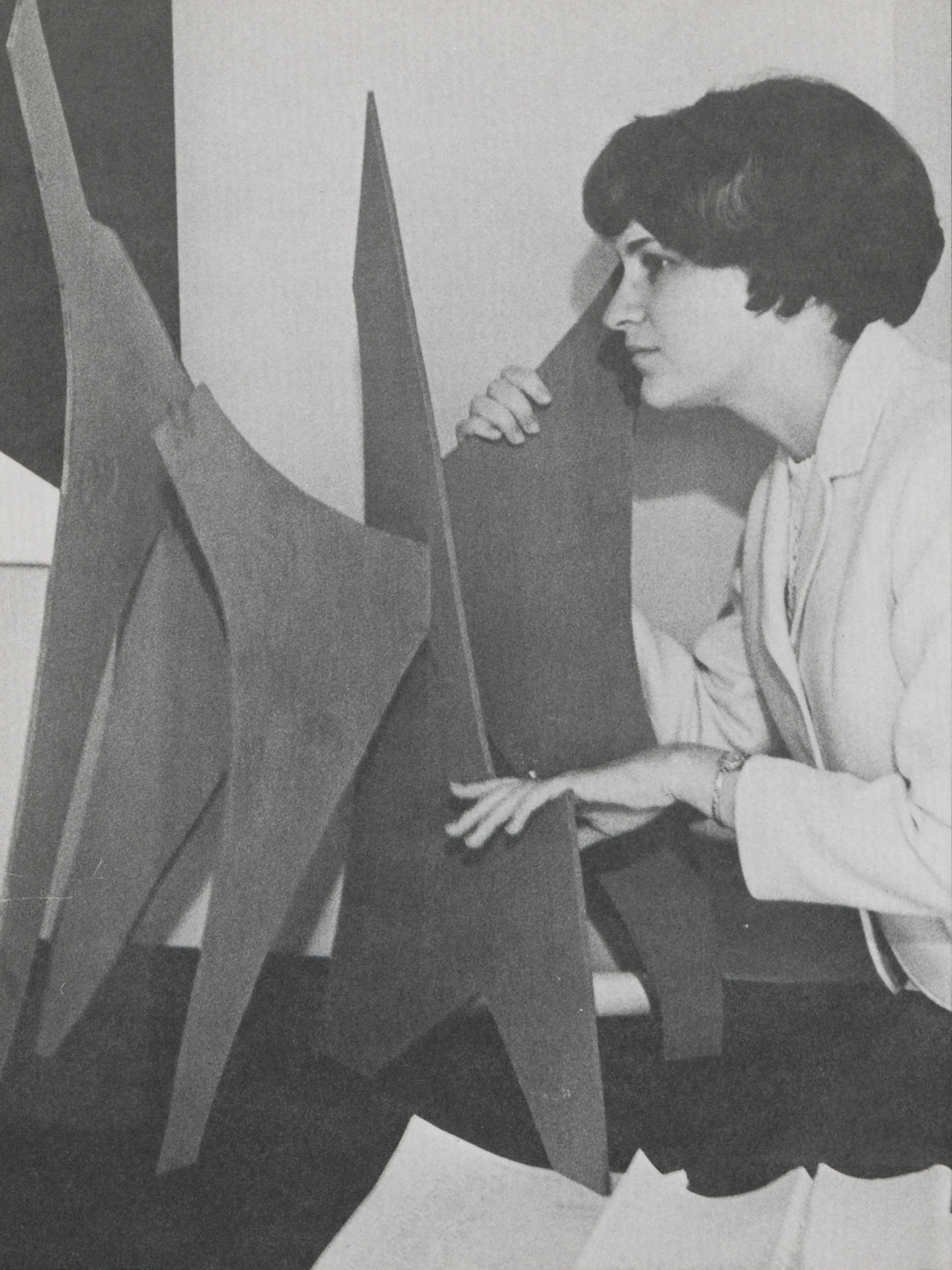
207. FUNDAMENTALS OF PAINTING AND DESIGN A studio course consisting of eight hours of practical work a week: four hours supervised and four hours pursued independently. Instruction is offered in materials, several media of drawing and painting, composition, design and color theory. *This course does not count toward distribution requirements.*

301. ITALIAN RENAISSANCE ART Italian painting, sculpture, and architecture of the fifteenth and sixteenth centuries will be considered. The works of Ghiberti, Donatello, Brunelleschi, Masaccio, Leonardo, Piero della Francesca, Raphael, and Michelangelo will be reviewed in some detail. Theoretical and critical writings of the period will be discussed. *Prerequisite: 101 or 102.*

302. BAROQUE ART European painting, sculpture, and architecture of the seventeenth century will be considered. Particular emphasis will be placed upon the works of Caravaggio, the Carracci, Bernini, Borromini, Rubens, Rembrandt, Vermeer, Velasquez, and Poussin. Critical and theoretical writings of the period will be discussed. *Prerequisite: 101 or 102.*

303. MODERN ART Painting from 1870 to the present, including some consideration of parallel trends in other media. The movements in modern art from Impressionism to Pop Art will be reviewed. *Prerequisite: 101 or 102.*

304. AMERICAN ART The development of painting, sculpture, and architecture in America. Special consideration will be given to the problem



of what constitutes an American style in the arts and the relationship between art and culture. *Prerequisite: 101 or 102.*

306. THE HISTORY OF ARCHITECTURE SINCE 1750 A study of the major architectural styles from 1750 to the present with particular emphasis on twentieth century innovations in space, structure and design. *No prerequisite.*

307. ART HISTORICAL METHODS Some considerations of the research tools of art historical analysis including bibliographical methodology and a study of the use of sources, secondary sources, and documents in art history. In addition, the major schools of art historical writing and theory since the Renaissance will be considered. *Prerequisite: 101 or 102.*

355. PAINTING The student will attend class six hours a week. He will receive instruction three of these hours. Various media will be explored including oils, water-color, and acrylic. The student will be graded on his ability to develop skills related to the media he has selected to work with. *Prerequisite: Fine Arts 207.*

356. SCULPTURE The student will attend class six hours a week. He will receive instruction at least three hours a week. Various media will be explored including clay, plaster, wood, stone and metals. An emphasis will be placed on carving, casting, and metal welding. The student will be graded on his ability to develop skills related to the media he has selected to work with. *Prerequisite: Fine Arts 207.*

357. GRAPHICS The student will attend class six hours a week. He will receive instruction at least three hours a week. Various media will be explored including woodcut, silk screen, etching. The student will be graded on his ability to develop skills related to the media he has selected to work with. *Prerequisite: Fine Arts 207.*

358. DRAWING The student will attend class six hours a week. He will receive instruction at least three hours a week. The balance of the course will be devoted to working from the human form during which the student will be expected to develop his sense of two dimensional line and three dimensional illusionistic form through the use of such graphic media as pen and ink, pencil, charcoal, conte crayon, etc. The student will be graded on his ability to develop skills in the various media he is asked to work with. *Prerequisite: Fine Arts 207.*

391, 392. STUDIES IN ART HISTORY Studies in selected topics of the history of art and architecture. The content of each course will be altered periodically. *Prerequisite: 101 or 102. Permission of the instructor is also required.*

401 SEMINAR: PROBLEMS IN RENAISSANCE ARCHITECTURE
Theory and architecture in the Italian Quattrocento. *Prerequisite: 101 or 102. Also permission of the instructor is required.*

402. SEMINAR: GERMAN PAINTING A study of the development of German expressionism and its influence upon modern art. *Prerequisite: 101 or 102 and selected advanced courses. Permission of the instructor required.*

MAJOR: *Option one*, with emphasis in art history: nine courses, including 101, 102 and 301 or 302. In addition, 307 is strongly recommended, if possible in the sophomore year. Honors and independent study courses and 207 may be applied to the major.

Option two, with a balance between direct studio experience and art history: five art history courses, including 101 and 102; four studio courses, including 207.

MINOR: six courses, including 101, 102 and 301 or 302. 307 is recommended.

NOTE: A reading knowledge of French and German is necessary for graduate work in the history of art. For those wishing to specialize in Antique and Medieval art in graduate school, Latin is necessary.

Geology

Associate Professor Vernon, *Chairman*

Assistant Professors Hanson and Potter

The course offerings in the Department of Geology offer a comprehensive view of the principal areas of the science of geology and experience in the fundamentals of geological investigation. This program is provided for students planning to proceed with graduate study or research in the field or to enter directly into positions for which geological training is a requisite, as well as to stimulate understanding and enjoyment of the region in which the student lives.

III, II2. PHYSICAL AND HISTORICAL GEOLOGY First semester: geological principles and external processes, including rock weathering and soils, river action and valley development, effects of glaciers, oceans, and volcanoes. Internal processes and their effects are examined, along with earth movement in mountain building, faulting, and folding. Second semester:

the history of the earth, its changing features, and the development of its animal and plant inhabitants. Three hours' classroom and three hours' laboratory a week.

201. GEOMORPHOLOGY The description and interpretation of the relief features of the earth's continents and ocean basins with a comprehensive study of the basic geologic processes which shape them. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1970-1971. Prerequisite: 111.*

203. ECONOMIC GEOLOGY Covers the mineral fuels, coal, oil, and gas, the major ore deposits, and the building materials including their geographic distribution, geologic occurrence, origin, and uses. *To be given in 1969-1970, 1970-1971, and in alternate years thereafter. Prerequisite: 111.*

205. MINERALOGY A course in descriptive mineralogy in which the various mineral groups are studied. Includes crystallography, general physical properties, and chemical and systematic mineralogy. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1969-1970. Prerequisite: 111 and Chemistry 131, 132 or concurrent registration therein.*

206. PETROLOGY A systematic study of the modes of occurrence, origin, and classification of rock types. Laboratory studies will be focused on the megascopic identification of the common rocks. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1969-1970. Prerequisite: 205.*

207. INVERTEBRATE PALEONTOLOGY A systematic study of the invertebrate fossil groups, their evolution, and their relationships to living animals. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1970-1971. Prerequisite: 111, 112 or Biology 111, 112.*

208. STRATIGRAPHY AND SEDIMENTATION A study of the origin, description, properties, classification, and methods of correlation of the stratified rocks and sediments. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1970-1971. Prerequisite: 111, 112.*

221. MARINE GEOLOGY An introduction to physical marine science including the physics and chemistry of the ocean, the morphology of the ocean floor, and the processes involved with the formation and maintenance of ocean basins. Topics include the description and geotectonic explanation for ocean basins, rises, trenches, island arcs, mid-oceanic ridges, and new oceanic crust. Also considered are the character and distribution of chemical

and detrital sediments in the marine system, including turbidites, pelagic sediments, and carbonates. *Given in alternate years. To be given in 1969-1970. Prerequisite: One year of a laboratory science.*

301. FIELD GEOLOGY A course in some of the basic geological field techniques, with the preparation of topographic and geologic maps and reports from data obtained by the student in the field. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1969-1970. Prerequisite: 111, 112.*

302. STRUCTURAL GEOLOGY Properties, relationships, and positions of the component rock masses of the earth. Two hours' classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1969-1970. Prerequisite: 301.*

316. PHOTOGEOLOGY The geomorphic and geologic interpretation of aerial photographs and their use in field mapping. One hour of classroom and three hours' laboratory a week. *Given in alternate years. To be given in 1970-1971. Prerequisite: 201 and permission of the instructor. One-half course.*

318. OPTICAL MINERALOGY Crystal optics and the use of the polarizing microscope for the examination of minerals by the immersion method and rocks in thin section. One hour of classroom and three hours' laboratory a week. *To be given in 1969-1970, 1970-1971, and in alternate years thereafter. Prerequisite: 206 or concurrent registration therein. One half course.*

320. GEOCHEMISTRY A systematic study of the chemistry of the earth, including principles governing the distribution and migration of the chemical elements as well as the abundance of the elements and atomic species in the earth, its aqueous envelope, and the atmosphere. *Given in alternate years. To be given in 1970-1971. Prerequisite: Chemistry 131, 132 and permission of the instructor. One-half course.*

322. SEDIMENTARY PETROGRAPHY A comprehensive study of sediments and their genesis through the systematic description of their mineralogy and texture. Specific attention is focused on quantitative estimates of grain composition, size, shape, and packing. A statistical evaluation of these properties will also be made by computer techniques. *Given in alternate years. To be given in 1971-1972. Prerequisite: 318 or concurrent registration therein. One-half course.*

MAJOR: nine courses including 111, 112, 205, 206, 301 and 302. In addition, Chemistry 131, 132 is required.

MINOR: six courses including 111, 112. Physics 105 may be counted toward this requirement.

NOTE: Any student desiring departmental recommendation for graduate work must also satisfactorily complete Mathematics 131, 132 and Physics 111, 112 or 131, 132.

History

Professors Gates, *Chairman*, Kellogg*, Pflaum, and Young
Associate Professors Carson and Garrett
Assistant Professors Gahn, Jarvis, Rhyne, and Weinberger
Teaching Fellow Stagger

The offerings in history are planned to serve the following purposes: to inform the student interested in man's past, to acquaint him with the leading interpretations of his heritage, to encourage him to comprehend and utilize historical perspectives, and to introduce him to the methodology and techniques of historical analysis. Students elect courses in the department as a component of their liberal education, as a preparation for graduate study and for the teaching of history, to complement their work in other disciplines, and to provide a background for such careers as law, journalism, and library science.

111, 112. HISTORY OF WESTERN CIVILIZATION The elements of continuity and the phases of change in the civilization that matured in Europe from its beginnings in the Near East and Greece to its current expansion into other areas of the world.

117, 118. AMERICAN HISTORY A survey of the colonial origins and national development of the United States from 1607 to the present. Some attention is given to interpretations by leading historians.

119. SOUTH ASIA: INDIA AND PAKISTAN Following a survey of the origin and formation of traditional Hindu civilization and the impact of Moslem culture, the emphasis is placed on nineteenth and twentieth century British India, with particular attention to the rise and triumph of nationalist movements.

*On leave, 1969-1970.

120. EAST ASIA: CHINA AND JAPAN An introduction to the classical tradition of Chinese and Japanese civilizations followed by an analysis of the changes brought about by the impact of modernization in the nineteenth and twentieth centuries.

190. INTRODUCTION TO HISTORY Through selected readings and discussion about the nature of history, and through analysis and projects related to selected historical problems the student is introduced to the art and techniques of the discipline. Normally elected in the Freshman year.

243, 244. ENGLISH HISTORY: 55 B.C. TO DATE First semester: the political and social evolution of England to the end of the seventeenth century. Second semester: Britain and the Empire to the present.

253, 254. HISTORY OF RUSSIA First semester: from earliest times to the reign of Nicholas II. Second semester: fall of the czardom, the Russian revolution, and the Communist state from Lenin to Khrushchev. *Prerequisite: 112, or permission of the instructor.*

271. EIGHTEENTH CENTURY EUROPE: UTRECHT TO VIENNA, 1713-1815. Facets of the Enlightenment; intellectual ferment; expansion of Europe; the forces of revolution and the impact of Napoleon. *Given in alternate years. To be given in 1970-1971.*

272. NINETEENTH CENTURY EUROPE: 1815 to 1914 Starts with the Congress of Vienna and proceeds with the reaction after 1815, the revolutions of the midcentury, unifications of Germany and Italy: problems of nationalism, imperialism, liberalism; and concludes with diplomatic background for the First World War.

273. TWENTIETH CENTURY EUROPE: SINCE 1914 Political, economic, and social sequels to Versailles; the challenge to European dominance and changing relations with Russia and the United States; the rise of totalitarianism to World War II and its consequences.

282. DIPLOMATIC HISTORY OF THE UNITED STATES Emphasis upon the diplomacy of the early Republic, expansion, the emergence of the United States as a world power, and the use of collective security.

289. THE NEGRO IN AMERICA A survey of black history from the origins of slavery in the American colonies to the urban migrations of the twentieth century.

311. STUDIES IN AMERICAN HISTORY Selected areas and problems in American history. Specific topics announced each year. *Prerequisite: 190 or permission of the instructor.*

313, 314. STUDIES IN EUROPEAN HISTORY Selected areas and problems in European history. Specific topics announced each year. *Prerequisite: 190 or permission of the instructor. 314 offered in Bologna only.*

315. STUDIES IN COMPARATIVE HISTORY Selected trends and problems studied comparatively in various periods and geographical areas. Specific topics announced each year. *Prerequisite: 190 or permission of the instructor.*

325. MEDIEVAL HISTORY The development of European civilization from the disintegration of Roman imperial authority to the late thirteenth century, with some attention to eastern Europe. *Given in alternate years. To be given in 1969-1970.*

326. RENAISSANCE AND REFORMATION: 1300-1648 The transition from medieval to modern Europe interpreted with special attention to the interrelation of the economic, political, cultural, and religious forces of change. *Given in alternate years. To be given in 1969-1970.*

345. ENGLISH CONSTITUTIONAL AND LEGAL HISTORY A technical approach to the evolution of governmental and legal institutions in the context of English society.

347. AMERICAN COLONIAL HISTORY English America from the epoch of settlement through the achievement of independence. Particular attention is given to the causes and consequences of the American Revolution. *Given in alternate years. To be given in 1969-1970.*

349, 350. AMERICAN INTELLECTUAL AND SOCIAL HISTORY A study of ideas, myths, and popular opinion in their social context with attention to American Puritanism, Enlightenment America, the Romantic era, labor and reform movements, intellectual revolt and conservatives, radicals, and liberals in modern America.

355. TWENTIETH CENTURY AMERICAN HISTORY The development of the United States since 1898 with emphasis upon reform movements and the assumption and implications of great power status.

357. EUROPEAN INTELLECTUAL HISTORY Main currents of Western thought from the Middle Ages to the present. The interaction of ideas and social development is stressed with attention to the influence of science and economic changes. Includes such topics as humanism, the scientific revolution, evolutionary thought, relativism, and contemporary criticism of the liberal tradition. *Given in alternate years. To be given in 1969-1970.*

358. 19th-20th CENTURY EUROPEAN DIPLOMACY. European diplomatic history from the Congress of Vienna through World War II. *Prerequisite: 112.*

387. AMERICAN CONSTITUTIONAL HISTORY The framing of the Federal Constitution and its historical development, with emphasis on evolving interpretation by the courts. *Given in alternate years. To be given in 1970-1971.*

388. AMERICAN HISTORY IN THE CIVIL WAR PERIOD The period from the end of the Mexican War through the Civil War. The background is treated and attention is directed to both military and nonmilitary aspects. *Given in alternate years. To be given in 1969-1970.*

389. SEMINAR IN EUROPEAN HISTORY: SELECTED TOPICS
Prerequisite: Permission of the instructor.

390. SEMINAR IN AMERICAN HISTORY: SELECTED TOPICS
Prerequisite: Permission of the instructor.

490. HISTORIOGRAPHY. The history of historical writing derived from works of representative historians, past and present, as well as analysis of historical craftsmanship. The evolution of research techniques and historians' concepts about the nature and purpose of history receive attention. *Prerequisite: six courses in history.*

491. HISTORY SEMINAR An introduction to the craft of the historian. Includes discussion of theories on the meaning of history and study of research methods involving the solution of selected problems. *Prerequisite: at least a 3.00 average in history and permission of the instructor.*

MAJOR: nine courses, including 190, Introduction to History, 490 or 491 and at least two courses from one of the following groups and one course from the other group.

Group A: 243, 244, 253, 254, 271, 272, 273, 313, 325, 326, 345, 357, 358, 389.

Group B: 281, 282, 289, 311, 347, 349, 350, 387, 388, 390.

Note 1: One of the following courses may be substituted for one of the courses in Group A: Classics 251, 252, 253 or 254.

Note 2: In lieu of 490 or 491 qualified students may elect Philo. 334, Philosophy of History *but this course will not count* as one of the nine required courses in history.

Note 3: A reading knowledge of French and German is highly desirable for those contemplating graduate work.

MINOR: six courses, including at least two in American and two in European history.



Mathematics

Professor Nelson

Associate Professors Baric, W. Benson, Light, and Martin,
Chairman

Assistant Professors Jackson, Pence, Stegink and Stodghill

The Major program in mathematics is designed to prepare students for graduate study, for secondary school teaching, or for work in industry. 151, 152, 251 (or 131, 132, 231) 252, 261 and 262 should be completed as soon as possible, preferably during the freshman and sophomore years. The basic course for all higher mathematics, Abstract Algebra, should be taken in the junior year. The student who intends to go to graduate school should take Topics in Analysis and Topology and as much addi-

tional mathematics as his schedule will permit. The student who intends to teach should take Topics in Geometry and Statistics. The student who intends to go directly into industry should take Mathematical Physics, Statistics and Numerical Methods.

*111, 112. PRINCIPLES OF MATHEMATICS A terminal course for non-science students. Various topics not requiring any special mathematical training. *These courses do not count toward the requirements of a major or minor.*

*131, 132. CALCULUS AND ANALYTIC GEOMETRY I, II Derivatives and integrals of elementary functions of one variable with such applications as maxima and minima, curve tracing, velocity, acceleration, areas, and volumes, together with an introduction to plane analytic geometry.

*151, 152. CALCULUS AND ANALYTIC GEOMETRY I, II A deeper and more theoretical treatment of the same material as *131, 132. Students intending to major in mathematics should elect this course.

201, 202. SPECIAL TOPICS Topics will be chosen from number theory, introductory calculus, probability, or applications of mathematics to the social or life sciences. *Prerequisite: One year of college mathematics.* One-half or one course.

221. ELEMENTARY STATISTICS An introduction to descriptive statistics and statistical inference, including such topics as measures of central tendency and dispersion, tests of hypotheses, correlation and time series. *Prerequisite: 111 or its equivalent. This course does not count toward the requirements of a major or minor.*

231. CALCULUS AND ANALYTIC GEOMETRY III Solid analytic geometry, differentiation and integration of functions of several variables, and infinite series; a continuation of Mathematics *131, 132. *Prerequisite: 132 or 152.*

251. CALCULUS AND ANALYTIC GEOMETRY III A deeper and more theoretical treatment of the same material as Mathematics 231. *Prerequisite: 152 or equivalent.*

252. CALCULUS IV AND DIFFERENTIAL EQUATIONS A continuation of the common material of 231 and 251 together with an introduction to the study of differential equations and their solutions by elementary methods, series solutions, and numerical algorithms.

*261, 262. INTRODUCTION TO MODERN MATHEMATICS An introduction to the language, content, and deductive techniques of mathematics.

An introduction to formal logic, sets, relations and functions will precede applications to such topics as linear algebra, the theory of numbers, geometry, and analysis. Particular attention will be given to linear algebra, including vectors, linear transformations, and matrices. *Prerequisite: 132 or 152, or permission of the instructor.*

*321, 322. STATISTICS An introduction to the mathematical theory of probability and statistics, including a study of probability distributions and their parameters, statistical inference, tests of significance, estimation and tests of hypotheses. *Prerequisite: 132 or 152.*

332. NUMERICAL METHODS Interpolation, approximation, numerical integration and differentiation and least squares techniques. *Prerequisite: 252; Computer Science 101 or the equivalent.*

*341, 342. MATHEMATICAL PHYSICS Development of mathematical methods of analysis with their application to problems in classical and modern theoretical physics. The topics studied include the use of Laplace transforms in the solution of differential equations, series solutions of differential equations, Bessel and Legendre functions, advanced vector analysis, Green's theorem and Stoke's theorem, Fourier series, and solutions of partial differential equations and boundary value problems. Three lectures a week. *Prerequisite: 252; Physics 231 or 311 or 411 or concurrent registration therein.* Also called Physics 341, 342.

*351, 352. ABSTRACT ALGEBRA An introductory treatment of fundamental algebraic structures such as groups, rings, fields, and vector spaces. *Prerequisite: 262 or its equivalent.*

401, 402. SPECIAL TOPICS Topics will be chosen from applied mathematics or some specialized area of advanced mathematics, depending on the interests of the staff and the students. *Prerequisite: Permission of the instructor.* One-half or one course.

*451, 452. TOPICS IN ANALYSIS An exact and axiomatic treatment of the real numbers, the topology of real n -dimensional spaces, convergence, continuity, differentiation, integration and infinite series. Other topics may include functions of bounded variation and analytic functions of a complex variable. *Prerequisite: 252 and 262.*

*461, 462. TOPICS IN GEOMETRY At least one semester of the geometry sequence will be topology. The other semester will be in an area from the foundations of geometry, projective geometry, differential geometry, or topology. *Prerequisite: 262.*

MAJOR: ten courses, including 351, 352, and at least two other courses numbered above 300. In addition, Physics 111, 112 or 131, 132 is required.

MINOR: six courses.

NOTE: It is recommended that every mathematics major:

- a. Continue his study of physics;
- b. Satisfy his language requirement in German, French, or Russian;
- c. Take courses in philosophy, particularly Philosophy of Science.

Modern Languages and Literatures

Professors Angiolillo, *Chairman*, Kennedy, and Kirk

Associate Professor Bogojavlensky

Assistant Professors Dornemann, Fox, Henderson, Joyce, Katz,
Kline, Martínez, Podol, Rollfinke*, and Steiner

Instructors Billings, Draper, Fréval, I. Woodworth and L.
Woodworth

The courses in modern languages are designed to provide well-balanced training in the language, literature, and civilization for those who elect a major or minor in the department. Those who do not wish to meet the requirements for a major or minor may elect any courses for which they have the prerequisites as stated in the description of the courses. All elementary and intermediate language courses include three hours' classroom and at least one hour of language laboratory.

CHINESE

101-102. ELEMENTARY CHINESE Basic drill on pronunciation, intonation, speech patterns. Reading and conversation in the official spoken language. *Given occasionally. Not to be given in 1969-1970.*

FRENCH

101-102. ELEMENTARY FRENCH Drill in sentence patterns. Special attention to pronunciation and oral work. Composition and reading.

* *On leave, 1969-1970.*

*111, 112. INTERMEDIATE FRENCH Emphasis on oral work. Readings and composition. *Prerequisite: 102 or the equivalent.*

*231, 232. FRENCH CONVERSATION AND COMPOSITION This course offers greater facility and advanced practice in speaking, understanding, and writing the language used in everyday situations. Initiation to some of the cultural aspects of the country through oral and written reports in the language. Careful attention to grammar and style. Supplementary oral drill through the use of the language laboratory at the discretion of the instructor on a to-be-announced basis. *Prerequisite: 112, or the equivalent, with a grade of at least C.*

233, 234. SURVEY OF FRENCH LITERATURE A study of masterpieces of French literature. *Prerequisite: 112, or the equivalent, with a grade of at least C.*

*341, 342. ASPECTS OF FRENCH CIVILIZATION A study of French history and culture from the beginnings to the present. Intensive oral work. Written composition with attention to grammar and style. Conducted in French. *Prerequisite: 232, or the equivalent.*

351. FRENCH THOUGHT IN THE SEVENTEENTH CENTURY A study of the great writers of the period, especially Descartes, Pascal, La Rochefoucauld, La Fontaine, and La Bruyère. Collateral readings and reports. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

352. FRENCH THEATER OF THE SEVENTEENTH CENTURY Development of the classical ideal in French theater. Representative plays of Corneille, Racine, and Molière. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

353. THE PERIOD OF ENLIGHTENMENT BEFORE 1750 Consideration of representative works by such authors as Montesquieu, Voltaire, Lessage, Marivaux, l'Abbé Prévost, with special emphasis on the development of political, social, religious, and philosophical ideas. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

354. THE PERIOD OF ENLIGHTENMENT AFTER 1750 Readings and discussions concerning the continued rise and development of liberal thought as demonstrated by characteristic works of authors of this period, such as Voltaire, Diderot, Rousseau, Beaumarchais, Bernardin de Saint-Pierre. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

355. ROMANTIC AND PARNASSIAN POETRY A study of romanticism and realism in French poetry of the nineteenth century. Poems selected from the works of Lamartine, Vigny, Hugo, Musset, Nerval, Gautier, Leconte de Lisle, Heredia, and Sully Prudhomme, and from the works of minor poets belonging to these two movements. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

356. FRENCH POETRY FROM BAUDELAIRE TO THE PRESENT A study of the major poets from 1850 to the present, with special attention given to Baudelaire, Verlaine, Rimbaud, Mallarmé, Laforgue, Valéry, and the surrealist poets of the twentieth century. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

357. THE FRENCH NOVEL IN THE NINETEENTH CENTURY A brief examination of the development of the French novel, followed by the critical reading of novels selected from the works of the great writers of the 19th century: Stendhal, Balzac, Hugo, Flaubert, Zola, and Anatole France. Lectures, discussions, and term papers in French. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

358. THE FRENCH NOVEL IN THE TWENTIETH CENTURY A study of the French novel of the 20th century and a critical reading of selected works of such distinguished novelists of the period as Proust, Gide, Mauriac, Bernanos, Saint-Exupéry, Malraux, Sartre, Camus, and Giono, with a brief consideration of the work of the "new wave" novelists. Lectures, discussions, and papers in French. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

359. THE ROMANTIC THEATER A study of the major playwrights and characteristics of the theater in the nineteenth century: plays selected from the works of Dumas, Hugo, Vigny and Musset. The course will include a brief review of the theater in the seventeenth and eighteenth centuries to serve as an introduction to the Romantic theater. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

360. MODERN FRENCH THEATER Representative plays of the French theater in the twentieth century, from Jarry's *Ubu Roi* to Anouilh's *Becket*, including works by Claudel, Rostand, Cocteau, Giraudoux, Montherlant, Sartre, and Camus. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

361. FRENCH LITERATURE OF THE RENAISSANCE A study of major works from the prose, poetry, and theater, with particular emphasis on Rabelais and the development of humanism, the theory and practice of the Pléiade, and Montaigne. Collateral readings and reports. Conducted in French. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

362. SEMINAR IN FRENCH LITERATURE A thorough investigation of a major figure or important literary trend (chosen at the discretion of the instructor and in consultation with the majors) in French literature with emphasis on seminar reports and discussions. *To be given in 1970-71. Prerequisite: Major in French.*

NOTE: For requirements of major and minor, see page 91.

GERMAN

101-102. ELEMENTARY GERMAN A study of the fundamentals of German grammar, including the reading of short prose selections and poetry, with emphasis on oral expression.



*III, 112. INTERMEDIATE GERMAN German 111 will be an intensive review of German grammar with emphasis on expanding vocabulary through collateral reading. German 112 will stress extensive reading with emphasis on conversation and composition and is recommended for students planning advanced studies in German. *Prerequisite: German 111, or the equivalent.*

113. INTENSIVE READINGS IN GERMAN Principally a course for non-majors designed as preparation for Graduate Reading or Reading Proficiency Examinations, as well as providing sophisticated skills for the reading of publications, journals, and technical materials. *Prerequisite: German 111, or the equivalent.*

*231, 232. GERMAN CONVERSATION AND COMPOSITION The first semester aims to give the student a greater facility and advanced practice in speaking and understanding the German language as used in everyday situations, with emphasis on improving conversational and compositional skills. The second semester will include a study of stylistics, versification, interpretation, bibliography, etc. *Prerequisite: German 112, or the equivalent, with the grade of at least C.*

233, 234. SURVEY OF NINETEENTH CENTURY AND TWENTIETH CENTURY LITERATURE AND "KULTUR" An introduction to the major works and *Kultur* of the 19th and 20th centuries. Lectures and discussions covering the representative works and trends. *Prerequisite: German 112, or the equivalent, or consent of the instructor.*

301. GERMAN LITERATURE FROM ITS BEGINNINGS TO THE REFORMATION A study of the major works and principal figures of the Old and Middle High German periods (works to be read in New High German translation) with special emphasis on the medieval epics and the *Minnesänger* through Humanism and the Reformation, including *Meistersinger*, Mystics, and the writings of Luther. *Given in the fall semester in alternate years. To be given in 1970-71. Prerequisite: German 234 or equivalent, or consent of the instructor.*

304. GERMAN LITERATURE OF THE BAROQUE, RATIONALISM AND "STURM UND DRANG" A study of the major figures of the German Baroque including Opitz, Gryphius, Gerhardt, Angelus Silesius, and Grimmshausen; German Rationalism, Pietism, and Rococo from Gottsched through Klopstock, Wieland and Lessing to the literary figures of the *Sturm und Drang*. *Given in the spring semester in alternate years. To be given in 1970-71. Prerequisite: German 234, or equivalent, or the consent of the instructor.*

305, 306. THE AGE OF GERMAN CLASSICISM A thorough study of the significant dramas, poetry, and prose of Goethe and Schiller, including

Weimar humanism and the friendship between Schiller and Goethe. *Given in alternate years. To be given 1969-1970. Prerequisite: German 234 or equivalent, or consent of the instructor.*

307. THE AGE OF ROMANTICISM A study of German Romanticism from its early phase including the writings of Hölderlin and Jean Paul; the theoreticians and philosophers of the movement including Fichte, the Brothers Schlegel, and Schleiermacher; the major genre of the period including the *Märchen*, the major writers of the period from Novalis through Eichendorff, E.T.A. Hoffmann and the early Heine. *Given in the fall semester in alternate years. To be given 1969-1970. Prerequisite: German 234 or equivalent, or consent of the instructor.*

308. GERMAN PROSE AND POETRY FROM REALISM THROUGH EXPRESSIONISM A study of the major movements and principal figures from *Junges Deutschland* in the early 19th century through Realism and Naturalism to the first decades of the 20th century with emphasis on the poetry and prose of the period from the later Heine through the Expressionists. *Given in the spring semester in alternate years. To be given 1969-1970. Prerequisite: German 234 or equivalent, or consent of the instructor.*

309. THE DRAMA OF THE NINETEENTH CENTURY An intensive study of this most significant genre in the 19th century, including the major dramatists Kleist, Grillparzer, Grabbe, Büchner, Hebbel, the early Hauptmann, young Wedekind, and Hofmannsthal. *Given in the fall semester in alternate years. To be given in 1970-1971. Prerequisite: German 234 or equivalent, or consent of the instructor.*

311, 312. MODERN GERMAN PROSE AND POETRY German Literature from the Expressionists and the Austrian *fin de siècle* to the present in a study of the prose and poetry of the leading early and contemporary 20th century authors with emphasis on Thomas Mann, Hesse, Kafka, Böll, Grass, et al. *Given in alternate years. To be given in 1970-1971. Prerequisite: German 234 or equivalent, or consent of the instructor.*

313. MODERN GERMAN DRAMA A study of the chief trends in 20th century German drama from Expressionism to the contemporary scene with emphasis on the mature Hauptmann and later Wedekind, Kaiser, Brecht, Frisch, Dürrenmatt, et al. *Given in the fall semester in alternate years. To be given in 1969-1970. Prerequisite: German 234 or equivalent, or consent of the instructor.*

314. SEMINAR IN GERMAN LITERATURE A thorough investigation of a significant figure or major development in German Literature, chosen at the discretion of the instructor and in consultation with the majors, with

emphasis on seminar reports and discussions. *To be given in the spring semester each year. Prerequisite: Major in German or consent of the instructor.*

NOTE: For requirements of major and minor see page 91.

ITALIAN

101-102. ELEMENTARY ITALIAN Thorough review in grammar. Special attention given to pronunciation and oral work. Composition and graded readings.

*211, 212. INTERMEDIATE ITALIAN Grammar review. Reading and Composition. Emphasis on oral work. *Prerequisite: 102, or the equivalent.*

RUSSIAN

101-102. ELEMENTARY RUSSIAN Thorough drill in grammar. Special attention given to pronunciation and oral work. Composition and graded readings.

*211, 212. INTERMEDIATE RUSSIAN Grammar review. Reading and Composition. Emphasis on oral work. *Prerequisite: 102, or the equivalent.*

*331, 332. RUSSIAN CONVERSATION AND COMPOSITION Practice in everyday conversation. Advanced grammar, reading and discussion of short works by well-known Russian authors. Conducted in Russian. *To be given in 1970-1971. Prerequisite: 212, or the equivalent, with a grade of at least C.*

*333, 334. MASTERPIECES OF RUSSIAN LITERATURE Reading and discussion of representative works by classic, and Soviet authors. Conducted in Russian. *To be given in 1969-1970. Prerequisite: 212, or the equivalent, with a grade of at least C.*

352. RUSSIAN LITERATURE IN TRANSLATION The course will mainly center on the nineteenth and early twentieth century. Special attention will be given to works of social, political, and religious thought, within historical context. By means of a thorough introduction, the earlier periods will be covered, so as to provide necessary background knowledge. Selected works from the Soviet period will be read in conclusion. *To be given in 1969-1970.*

352, 353. RUSSIAN LITERATURE IN TRANSLATION An introduction to Russian literature, presenting its development from the earliest period

to the present time. Special attention will be given to works of social, political, and religious significance, within an historical context. *To be offered in alternate years, beginning in 1970-1971.*

354. THE WORKS OF TOLSTOY AND DOSTOEVSKY* A study of the major works of Tolstoy and Dostoevsky with a focus on art as a reflection of the author's interaction with his environment. *To be offered in alternate years, beginning in 1969-1970.* The lectures will be conducted in English.

355. SURVEY OF SOVIET LITERATURE* A study of Soviet literature from Gorki to contemporary authors, with an emphasis on political trends and influences. *To be offered in alternate years, beginning in 1969-1970.* The lectures will be conducted in English.

* Students majoring in Russian and Soviet Area Studies will receive credit toward the major in these courses only if they read certain texts in the original Russian.

NOTE: For requirements for minor see page 91.

SPANISH

101-102. ELEMENTARY SPANISH Drill in sentence patterns. Special attention to pronunciation and oral work. Composition and reading.

*111, 112. INTERMEDIATE SPANISH Emphasis on oral work. Readings and Composition. *Prerequisite: 102, or the equivalent.*

*231, 232. SPANISH CONVERSATION AND COMPOSITION This course offers greater facility and advanced practice in speaking, understanding, and writing the language used in everyday situations. Initiation to some of the cultural aspects of the country through oral and written reports in the language. Careful attention to grammar and style. Supplementary oral drill through the use of the language laboratory at the discretion of the instructor on a to-be-announced basis. *Prerequisite: 112, or the equivalent, with a grade of at least C.*

233, 234. SURVEY OF SPANISH LITERATURE A study of masterpieces of Spanish literature. *Prerequisite: 112, or the equivalent, with a grade of at least C.*

341. ASPECTS OF SPANISH CIVILIZATION A study of general historical, literary and artistic trends in the development of Spanish culture. Oral work and written composition, with emphasis on grammar and style. Conducted in Spanish. *Prerequisite: 232, or the equivalent.*

342. ASPECTS OF SPANISH-AMERICAN CIVILIZATION A general survey of Spanish-American history and culture from the discovery to the

present. Main influences in the formation of the Spanish-American character: individual and collective traits, literary and artistic trends. Emphasis on present-day social and economic problems. Oral work and written composition. Conducted in Spanish. *Prerequisite: 232, or the equivalent.*

346. MEDIEVAL SPANISH LITERATURE Reading and discussion of masterpieces of early Spanish literature, with special emphasis on the *Poema del Cid*. Collateral readings and reports. *Given in alternate years. To be given in 1969-70. Prerequisite: 233, or the equivalent.*

351. PROSE OF THE SPANISH GOLDEN AGE Reading and discussion of outstanding prose works of the Golden Age with special emphasis on the picaresque novel and Cervantes. Collateral readings and reports. Conducted in Spanish. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

352. SPANISH DRAMA & POETRY OF THE GOLDEN AGE Reading and discussion of sixteenth and seventeenth century drama and poetry. Special emphasis on Lope de Vega & Calderón. Collateral readings and reports. Conducted in Spanish. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

355. SPANISH LITERATURE OF THE ROMANTIC PERIOD Study of poetry and drama in the first half of the nineteenth century, with final focus on initial transitory stages leading to documentary realism. Collateral readings and reports. Conducted in Spanish. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

356. REALISM IN NINETEENTH CENTURY SPANISH LITERATURE Completion of study of transition from Romanticism to Realism. Progression into reading of novels which treat of contemporary reality and social problems. Readings and reports. Conducted in Spanish. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

357. THE GENERATION OF 1898 Readings and discussion of the chief works of Unamuno, Valle-Inclán, Baroja, Azorín, and others. Collateral readings and reports. Conducted in Spanish. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

358. CONTEMPORARY SPANISH LITERATURE Reading and discussion of representative contemporary novels, plays and poetry. Collateral readings and reports. Conducted in Spanish. *Given in alternate years. To be given in 1969-70. Prerequisite: 234, or the equivalent.*

371. COLONIAL AND NINETEENTH CENTURY SPANISH-AMERICAN LITERATURE A study of representative authors and literary trends of Spanish America from the period of the conquest to the end of the 19th

century. The chronicle, epic poetry, and the Baroque period and the Romantic movement in Spanish America. Conducted in Spanish. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

372. "MODERNISMO" AND TWENTIETH CENTURY SPANISH-AMERICAN LITERATURE. A thorough study of Rubén Darío and the most important "modernistas." Contemporary trends in verse and prose. Traditional and vanguard poetry; influence of surrealism and other European movements. Development of the contemporary novel in Spanish America: regional, psychological and existential trends. Conducted in Spanish. *Given in alternate years. To be given in 1970-71. Prerequisite: 234, or the equivalent.*

382. SEMINAR IN SPANISH LITERATURE. A thorough investigation of a major figure or important literary trend (chosen at the discretion of the instructor and in consultation with the majors) in Spanish literature with emphasis on seminar reports and discussions. *To be given in 1969-70. Prerequisite: Major in Spanish.*

MAJOR: ten courses numbered 111 or above, including 341 and 342 (231, 232, and normally 305 or 306, 314, and two of the following: 301, 304, and 307 German), are required.

MINOR: six courses numbered 111 or above, including 231 and 232 (Russian—six courses numbered 200 or above), are required.

NOTE: To elect a major, a student must have attained an inclusive average of at least 2.00 in all French, German, or Spanish courses taken in College.

Music

Associate Professor Posey

Assistant Professors Bullard, *Chairman*, and Goldstein

Courses in music are offered in the belief that musical styles and forms are neither accidents nor processes divorced from other aspects of man's evolution, but are reflections of his best thought throughout the ages, and therefore constitute a history of ideas. Instruction in music is available to students whose interest is of a general nature and to students who anticipate graduate or professional study. The offerings of the department are designed to enable students to acquire a balanced program of

study in the basic disciplines of music through training in the theory (or technical elements) of music, acquaintance with its history and literature, advanced performing experience through participation in vocal and instrumental ensembles, and individual instruction in applied music.

101, 102. **HISTORY OF MUSIC** An introductory course in music designed to train students in intelligent listening through discussion and analysis of selected representative works from plainsong through contemporary music. The primary objective of the course is to provide the student with such knowledge and understanding that may lead to an intelligent lifelong interest in music.

103, 104. **PIANO PROFICIENCY I** This course, open to all students and required of all music majors, is designed to equip the musician with the ability to read music of various styles at the piano. Exercise in playing keyboard music, harmonization and improvisation will be given. One half or one course each semester.

113, 114. **APPLIED MUSIC INSTRUCTION I** Open to all students who demonstrate by audition some acquaintance with musical notation, and who should continue to study instrument or voice at the basic level. One half or one course each semester.

203, 204. **PIANO PROFICIENCY II** This course is designed to strengthen the musician's ability in keyboard use. Exercises in sight reading, reduction of orchestral scores, use of C clefs and ornamentation will be given. One half or one course each semester. *Prerequisite:* Music 103, 104 or by examination.

*205, 206. **INTRODUCTION TO THE THEORY OF MUSIC** A survey of the elementary materials of music. The student is acquainted with some fundamental means of organizing these materials through firsthand contact with simple problems in melodic, contrapuntal, and harmonic techniques. *Prerequisite:* *Permission of the instructor.*

213, 214. **APPLIED MUSIC INSTRUCTION II** Open to students who demonstrate by audition a basic technique, and who should continue instruction on the intermediate level. May be repeated for credit with the permission of the instructor. One half or one course each semester.

*225, 226. **HARMONY** An introduction to the basic elements of harmony by means of discussion, analysis, and written exercises, complemented by intensive drill in sight singing, ear training, and keyboard harmony. *Open to sophomores with permission of the instructor, and to freshmen with permission of the department.*

301. TWENTIETH-CENTURY MUSIC A survey of the major trends in music during the twentieth century. *Open to sophomores with the permission of the instructor. Given in alternate years. Not given in 1969-1970.*

302. HISTORY OF OPERA A survey of operatic literature from its inception to the present. *Open to sophomores with the permission of the instructor. Given in alternate years. Not given in 1969-1970.*

303. INSTRUMENTAL MUSIC A discussion of selected topics in instrumental music, e.g., symphonic literature, chamber music, and keyboard literature. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Open to sophomores with permission of the instructor. Given in alternate years. Not given in 1969-1970.*

304. VOCAL MUSIC A discussion of selected topics in vocal music, e.g., choral literature, history of the art song, and music of the theatre. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Open to sophomores with permission of the instructor. Given in alternate years. Not given in 1969-1970.*

305. BIOGRAPHICAL STUDIES A study of the life and works of a major composer, e.g., Bach, Beethoven, Mozart, or Bartok. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Open to sophomores with the permission of the instructor. Not given in 1969-1970.*

313, 314. APPLIED MUSIC INSTRUCTION III. Open to students who demonstrate by audition a fully developed technical skill, and who should continue study on the advanced level. May be repeated for credit with the permission of the instructor. One half or one course each semester.

345, 346. COUNTERPOINT Study of the contrapuntal practice of several polyphonic periods, emphasizing analysis and written exercises. *Prerequisite: 226.*

351. SEMINAR IN MEDIEVAL AND RENAISSANCE MUSIC Study of the principal styles and forms of music from plainsong to ca. 1600. *Given in alternate years. Not given in 1969-1970. Prerequisite: 226.*

352. SEMINAR IN BAROQUE MUSIC Study of the principal styles and forms of music from ca. 1600 to 1750. *Given in alternate years. Not given in 1969-1970. Prerequisite: 226.*

353. SEMINAR IN CLASSIC AND ROMANTIC MUSIC Study of the principal styles and forms of music from ca. 1720 to ca. 1900. *Given in alternate years. To be given in 1969-1970. Prerequisite: 226.*

KINSON COLLEGE MUSIC DEPARTMENT

PRESENTS

the college chorale

and

the college choir

in

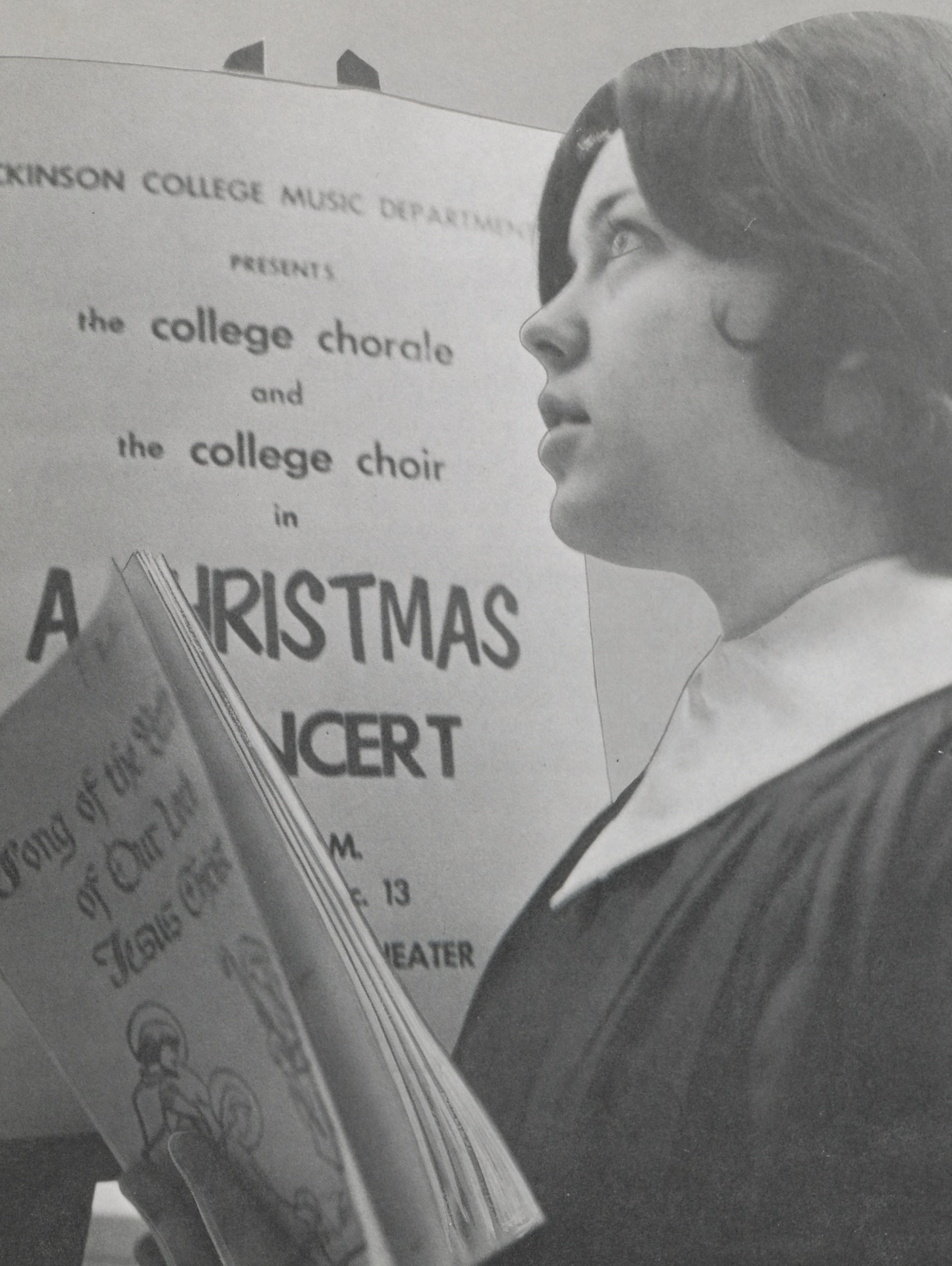
A CHRISTMAS CONCERT

Song of the
of Our Lord
Jesus Christ

M.

c. 13

THEATER



354. SEMINAR IN TWENTIETH-CENTURY MUSIC Study of the principal styles and forms of music from ca. 1900 to the present. *Given in alternate years. To be given in 1969-1970. Prerequisite: 226.*

413, 414. REPERTORY AND PERFORMANCE. The purpose of this course is to acquaint the advanced student with a broad selection of the repertory for his voice or instrument, and to prepare him to perform a program in spring semester which demonstrates his understanding of several musical periods and styles. *Prerequisite: Music 313, 314. Open to seniors with the permission of the Music Department upon recommendation of the instructor.*

495, 496. SENIOR SEMINAR Studies in music history and advanced theory, conducted through regular conferences and assigned writing. Open to seniors majoring in music who have demonstrated their ability to pursue independent research in at least two courses from this group: 351, 352, 353, 354. *Prerequisite: Permission of the Chairman of the Department.*

COLLEGE CHOIR A mixed choir open through audition to everyone in the college community. Several major choral works are performed each year at Dickinson and at other colleges. *Prerequisite: Permission of the Director. Noncredit.*

CHAPEL CHOIR This ensemble, carefully selected for vocal potential and musicianship, offers sacred music for the college chapel worship each Sunday and presents special programs with the College Choir. *Prerequisite: Permission of the Director. Noncredit.*

THE COLLEGIUM MUSICUM A small, select group of singers and instrumentalists drawn from the student body and faculty for the purpose of studying and performing masterpieces composed for small ensembles. *Prerequisite: Permission of the Director. Non-credit.*

THE COLLEGE—COMMUNITY ORCHESTRA Open to students at the college and to instrumentalists from the surrounding area interested in the performance and study of the best in orchestral literature. *Prerequisite: Permission of the Director. Noncredit.*

MAJOR: ten courses, including 101, 102, 225, 226, 345, 346, and four additional courses numbered above 350.

MINOR: six courses, including 101, 102, or 205, 206, and 225, 226 and two additional courses from the following group: 345, 346, 351, 352, 353, and 354.

NOTE: Students planning to major in music should complete 225-226 during their sophomore year. A knowledge of French and German is necessary for graduate study in music.

Philosophy

Professor Ferré*

Associate Professors Allan, *Chairman* and Allshouse

Assistant Professors Meil and Murray

Teaching Fellow Mester

Courses in philosophy teach students how to think critically and coherently about some of the most fundamental problems of life and the universe. Important answers to these problems are examined both for their cultural historical importance and for their value in aiding each student form his own philosophic ideas. Majors in philosophy are offered a central liberal arts education which, in addition to its intrinsic value, can provide, with appropriate related work, excellent preparation for graduate study and teaching in several fields and the basis for careers in such areas as the law, the ministry, or in policy-making positions of many kinds.

Students lacking a specified prerequisite course may qualify to enter an advanced course by satisfying the instructor of mastery of a short bibliography drafted by the department to encourage independent preparation for the course.

111. PROBLEMS OF PHILOSOPHY An introduction to philosophy through a critical examination of key problems such as the nature of knowledge, the criteria for truth, the relation of mind and body, the existence and nature of God, the basis of moral judgments, and the nature of art. The problems will be presented through selected primary sources.

121. GENERAL LOGIC An introduction to philosophy through an examination of the principles and conditions of correct thinking. Through a study of selected philosophical and everyday arguments, attention is focused on the relation of language to facts and concepts, the criteria of valid reasoning, and the detection of fallacies. The Aristotelian syllogism will receive special attention.

122. SYMBOLIC LOGIC An introduction to philosophy through an investigation of contemporary techniques and theories of valid reasoning.

* On leave, 1969-1970.

Emphasis is placed on propositional and quantificational logics, utilizing natural deduction methods. Additional work may include Boolean algebra, axiom systems, and the philosophy of symbolic-form. (This course does not count toward the distribution requirement I, 1 for the B.S. degree.)

132. **ETHICS** An introduction to philosophy through a critical examination of the major ethical theories, with emphasis on the attempt to determine the status of moral values as objective or subjective, absolute or relative.

234. **ORIENTAL PHILOSOPHY** A study of the nature of the philosophical traditions of the Orient. Primary attention is given to the Vedanta System and its relation to Indian culture, and to Buddhism and its relation to Chinese and Japanese culture. *Prerequisite: Any 100-level course or permission of the instructor.*

240. **PHILOSOPHY OF RELIGION** An attempt to understand religion through the application of philosophic methods, including a critical examination of possible solutions to some persistent religious problems such as the existence of God, religious knowledge, the problem of evil, free will, and immortality. *Prerequisite: Any 100-level course or major standing in Religion or permission of the instructor.*

241, 242. **HISTORY OF PHILOSOPHY** A critical examination of the great sweep of philosophic development within Western civilization from the beginnings of philosophy until the nineteenth century. Readings are chosen from key primary sources. The first semester includes study of the germinal pre-Socratics, some of the most important of the Platonic dialogues, selections from Aristotle, and outstanding medieval philosophers. The second semester deals with crucial developments in Western thought from the origin of modern philosophy, including Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, and Kant. *Prerequisite: Any 100-level course or permission of the instructor.*

331. **PHILOSOPHY OF ART.** A philosophical investigation of the meaning of art, including a critical examination of important modern and classical theories. The interpretations may include those of Aristotle, Plato, Aquinas, Kant, Hegel, Nietzsche, Heidegger and Whitehead. *Prerequisite: Any 100 level course or permission of the instructor.*

332. **SOCIAL PHILOSOPHY** An investigation into the ontology of history and society. Topics may include the conflict between freedom and order, the social nature and justification of values, the philosophy of dialectical materialism and its critics. Readings may include Marx, Sorel, Weber, Croce, and Pareto. Special attention is given to a critical examination of the methods of the social sciences. *Prerequisite: Any 100 level course, major standing in the social science division or permission of the instructor.*

334. **PHILOSOPHY OF HISTORY** An investigation into such questions as: Does history have any meaning? Does it manifest purpose or intentionality? What kind of knowledge of history is possible? The course will be concerned with three domains: historicity as the basic character of man, historiography as written history, and historical process as final reality. The interpretations examined may include those of Hegel, Heidegger, Marx, Spengler, and Toynbee. *Prerequisite: Any 100 level course or permission of the instructor.*

337. **PHILOSOPHY OF SCIENCE** An attempt to understand science as one of mankind's great intellectual creations. Emphasis is placed on the conceptual structures and methods used in scientific thinking, the relations between the particular sciences, and the logical character of scientific laws, theories, and presuppositions. General questions about knowledge, values, and ultimate beliefs are also explored in relation to the procedures and findings of the sciences. *Prerequisite: Any 100-level course or major standing in the Natural Sciences or Psychology or permission of the instructor.*

341. **NINETEENTH CENTURY PHILOSOPHY** A critical examination of the development of philosophical thought on the European continent, in Great Britain, and in the United States during the 19th Century. Primary sources may be chosen from Fichte, Hegel, Marx, Feuerbach, Schopenhauer, Comte, Mill, Kierkegaard, Spencer, Nietzsche, Mach, Peirce, Brentano, James, Bradley, and Frege. Attention will be given to the way in which these philosophers marked an "axial age" in the history of philosophy. *Prerequisite: 241 or 242, or permission of the instructor.*

342. **TWENTIETH CENTURY PHILOSOPHY** A study of the present philosophical situation with emphasis on recent forms of pragmatism, positivism, and existentialism. Special attention is given to the thought of Dewey, Whitehead, Russell, and Sartre. *Prerequisite: 241 or 242 or 341; or permission of the instructor.*

352. **EPISTEMOLOGY** A critical systematic study of various theories of knowledge with emphasis on contemporary expressions of great historical traditions. *Prerequisite: Any 100-level course or permission of the instructor.*

354. **METAPHYSICS** A critical and systematic study of various theories of ultimate reality with emphasis on modern expressions of great historical traditions, including views on the nature of the metaphysical enterprise itself. *Prerequisite: Any 100-level course or permission of the instructor.*

391, 392, 393, 394. **SEMINAR** A reading and conference course in advanced topics in philosophy. Two courses offered each year. *Prerequisite: Permission of the Chairman of the Department.*

SYMPOSIUM Monthly informal discussion on selected topics of mutual interest. Attended by all members of the philosophy faculty. *Open to majors in philosophy, and to others by invitation. Non-credit.*

MAJOR: nine courses including either 121 or 122, 241, 242, and at least four 300-level courses.

MINOR: six courses.

Physics and Astronomy

Professors Long, *Chairman*, Sia

Associate Professor K. Laws

Assistant Professors P. Laws, Luetzelschwab, Smith, and Wolf

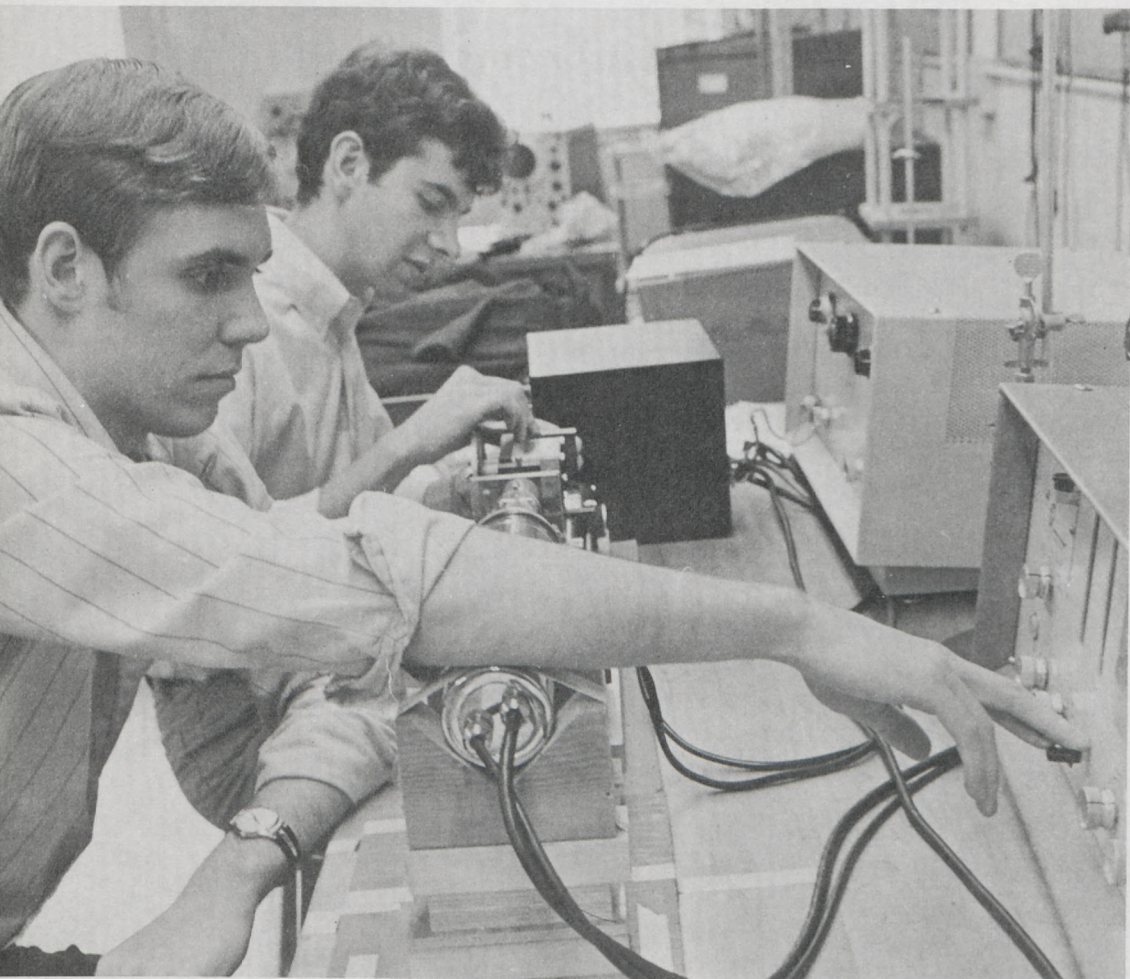
The program in physics and astronomy serves both those who desire intensive training in physical science and those who have an interest in science as an important part of a liberal education. It aims to give the student an insight into the fundamental laws of nature and some facility in the mathematical language in which they are expressed. Students may major in physics as a preparation for further professional study in physics or engineering, for secondary school science teaching, or for other careers in which a background in physical science is valuable.

Prospective majors in physics and engineering should take Physics 131, 132 and Math 131, 132 in their freshman year. Students who have taken Advanced Placement Examinations should consult the Chairman of the Department regarding appropriate placement. Physics 111, 112 is primarily for premedical students and for non-science students electing physics to satisfy the one year laboratory science distribution requirement. Physics 103 and 104 are non-laboratory courses designed to meet the interests of students whose chief concerns lie in the humanities and social sciences.

103. INTRODUCTION TO PHYSICS AND ASTRONOMY I The basic principles of the Newtonian physics and astronomy; including an analysis of

motion, gravitation and the planetary system, the conservation laws of physics, aspects of thermodynamics, and the development of atomic theory of matter. Three hours' classroom a week.

This course (and 104 following) will not satisfy the one year laboratory science distribution requirement. Either course however will count as the third required course in Distribution III, Group (2), for candidates for the A.B. degree who have met their laboratory science requirement in Biology or Geology. Also, they do not count toward the requirements of a major or minor.



104. INTRODUCTION TO PHYSICS AND ASTRONOMY II The evolution of modern physics: physical properties of light, aspects of relativity, the dual nature of light and matter, phenomena in electricity and magnetism, the Bohr atom, nuclear energy, stellar energy, cosmology. Three hours' classroom. *Prerequisite: 103, or one year of secondary school physics. See note under 103.*

105. ASTRONOMY The universe as it pertains to laws governing sizes, distributions, and motions of celestial bodies. Methods and results of astronomical explorations of the solar system. Three hours' classroom a week; practical work to be arranged.

*111, 112. ELEMENTARY PHYSICS Mechanics, heat, sound, light, electricity and selected topics in modern physics. This course is intended primarily for A.B. and premed students. Three hours' classroom and one two-hour laboratory a week. *This course will meet the one year laboratory science requirement for candidates for the A.B. degree.*

*131, 132. GENERAL PHYSICS I A more analytical study than Physics 111, 112, making use of the elementary calculus, designed for mathematics and physical science majors. During the first semester special emphasis is placed on particle mechanics, conservation principles, rotational dynamics, elasticity and harmonic motion. The second semester topics include basic concepts in heat and thermodynamics, and electricity and magnetism. Three hours' classroom and one three-hour laboratory a week. *Prerequisite: Mathematics 131, 132 or 151, 152 or concurrent registration therein.*

206. ASTRONOMY OF STELLAR SYSTEMS A study of the physical and mathematical tools used in obtaining knowledge of the universe beyond the limits of the solar system. Three hours' classroom a week. *Prerequisite: 112 or 132; Mathematics 132 or 152.*

*231, 232. FOUNDATION OF MODERN PHYSICS Topics include mechanical and electrical waves, physical optics; special relativity, matter waves and quantum aspects of light, quantum theory of the hydrogen atom, electron spin; statistical mechanics and the solid state; nuclear structure and decay, interaction of nuclear radiation with matter, and elementary particles. Three hours' classroom a week; eight laboratory periods or library research papers a semester. *Prerequisite: 132, or 112 with permission of the Chairman of the Department.*

*311, 312. ANALYTICAL MECHANICS AND WAVE MOTION Elementary vector analysis, statics. Particle mechanics including central field motion, free and forced harmonic oscillations including damping; rigid body mechanics with an introduction to advanced dynamics. Elastic waves and

wave motion. Three hours' classroom a week. *Prerequisite: 132 or 112 with permission of the Chairman of the Department; Mathematics 252.*

331. ELECTRICITY AND MAGNETISM Basic laws of electricity and magnetism. Properties of the electromagnetic field, interaction of the field with charges and currents, dielectric and magnetic media, thermionic emission, and gaseous discharge phenomena.

*341, 342. MATHEMATICAL PHYSICS Development of mathematical methods of analysis with their application to problems in classical and modern theoretical physics. The topics studied include the use of Laplace transforms in the solution of differential equations, series solutions of differential equations, Bessel and Legendre functions, advanced vector analysis, Green's theorem and Stoke's theorem, vector algebra and matrices, Fourier series, and solutions of partial differential equations and boundary value problems. Three hours' classroom a week. *Prerequisite: 231 or 311 or 331 or concurrent registration therein; Mathematics 252. Also called Mathematics 341, 342.*

*351, 352. EXPERIMENTAL PHYSICS I, II Physical electronics and electronic circuitry; experimental procedures in atomic, nuclear, and solid state physics. Two hours' classroom and one four-hour laboratory a week. *Prerequisite: 132 or 232; Mathematics 132 or 152.*

361. TOPICS IN MODERN PHYSICS Topics in physical optics and modern physics according to interests and needs of students. Two hours' classroom and one four-hour laboratory a week. *Prerequisites: 132 or 232; Mathematics 132 or 152.*

362. THERMODYNAMICS AND STATISTICAL MECHANICS Classical and quantum statistical mechanics and thermodynamics with applications to physical systems. Three hours' classroom a week. *Prerequisite: 132 or 232; Mathematics 231 or 251.*

391, 392. PHYSICS SEMINAR Recommended of all students engaged in honors in Physics. Study and discussion of topics in modern physics of mutual interest to students engaged in honors and independent study. One afternoon a week. *Prerequisite: Registration in a 500 course. One-half course.*

431, 432. TOPICS IN THEORETICAL PHYSICS Topics to be selected from the following areas: advanced dynamics, electromagnetic field theory, special and general relativity, applications of quantum mechanics to atomic, nuclear, and solid state physics. Three hours' classroom a week. *Prerequisite: 311, 331, 341, or permission of the instructor.*

MAJOR: nine courses, including 231, 232, 311, and 331. Physics 351, 352 are recommended for those interested in experimental physics.

MINOR: six courses.

Political Science

Professors Flaherty, *Chairman* and Flower*

Associate Professors Andrews, Harper, Nilsson*, and Rosi

Assistant Professors Boris and Dondero

The Department of Political Science studies the concentration and distribution of political power within and among the polities of the world, with stress upon the United States, Europe, and Asia. Theoretical, empirical, and normative analyses are introduced through a variety of approaches to the study of politics, particularly the historical, the institutional, and the behavioral. Whether the student's future includes graduate school or professional training, or an early start in business, journalism, international organization, or government service, the department attempts to equip him to cope with the problems of a period of revolutionary change. He is also challenged to participate responsibly in the process of converting his own and public opinion to public policy.

101. INTRODUCTION TO POLITICAL SCIENCE An introduction to some of the major areas, and problems and alternative perspectives of the discipline. Special attention will be given to Political Theory, Comparative Governmental systems, International Relations and American Government. Required for Political Science majors unless an exemption is granted by the department.

211. AMERICAN GOVERNMENT A basic, introductory course in American Federal government which emphasizes its structure and operation. Special attention is given to the executive, legislative, and judicial process.

230. THE CITY Political, economic, and social aspects of control in contemporary city life are the concern of this course. Case studies of several United States metropolitan communities provide course content, with emphasis on municipal methods for planning.

240. INTERNATIONAL RELATIONS The distribution of power among nations, the components of that power, and its pursuit are the major divisions of this course. Special emphasis is given the distinction between conflicts of right and conflicts of interest.

* On leave, 1969-1970.

243. STATE AND LOCAL GOVERNMENTS A study and analysis of state and local governments with particular emphasis on administrative problems. Group sessions are arranged with selected state and municipal officials. Attention is given to pressures exerted on community leadership.

335. PUBLIC ADMINISTRATION An analysis of the organization and functioning of the national bureaucracy in the light of the problem of executive responsibility in a democratic society. Special attention to administrative federalism, the office of the Presidency, fiscal and personnel administration, and administrative lawmaking.

341. AMERICAN POLITICAL THOUGHT The development of political ideas in America, stressing foreign influences on early colonial thought and those influences indigenous to the growth of American democracy. Colonial political ideas, the development of the Constitution, the Federalist Papers, State Rights philosophy versus centralized government, and contemporary interpretations are other ideals dealt with. *Prerequisite: 211 or permission of the instructor. History 217, 218 is recommended.*

345. CONSTITUTIONAL LAW An analysis of leading Supreme Court interpretations of the Constitution. Emphasis on concepts of judicial review, separation of powers, federalism, interstate commerce, obligation of contracts, due process, equal protection of the laws, and political and religious liberty. An introduction to legal research.

347. POLITICS OF DEVELOPING AREAS A comparative study of the process of modernization in selected nonwestern nations. Generalizations made about that process are tested against the experience of emerging nations in Asia, Latin America, and Africa. *Prerequisite: 211, 360.*

348. ASIAN GOVERNMENTS AND POLITICS Contemporary governmental and political systems of China and India in an historical and philosophical perspective. Particular emphasis upon the revolution and communism in China, the development of democratic neutralism in India, and problems arising from the political, social, and economic reconstruction of the Far East. The interests of the United States, Great Britain, and the U. S. S. R. in the Far East are examined.

350. INTERPRETATION OF COMMUNIST THEORY Beginning with the seminal works of Karl Marx and Friedrich Engels, the course analyzes their influence on subsequent political thinkers who appear to follow in this tradition. The course considers the writings of such men as Edward Bernstein, V. I. Lenin, Josef Stalin, Leon Trotsky, Mao-Tse-Tung, Milovan Djilas, and others. Both original source materials and significant interpretive analyses are used. *Prerequisite: 101 or permission of the instructor.*

353. EVOLUTION OF POLITICAL THOUGHT An analysis of the development of significant political ideas from the Greek city state to the

eighteenth century. Contributions to modern ideas and trends in government are assessed.

354. **RECENT POLITICAL THOUGHT** An examination of significant political thought concerning the origin, nature, and functions of the state from the Age of Reason to the present. Socialism, fascism, and democracy are studied with emphasis on the conflict between democracy and authoritarianism.

355. **POLITICAL BEHAVIOR** Cultural, social, and psychological factors which contribute to forms and directions of political behavior. It includes leading conceptual approaches, such as power, elites, and decisionmaking, illustrated by voting studies, class surveys, and other indices of contemporary political trends. *Prerequisite: Two courses in political science and preferably two courses in psychology or sociology, or permission of the instructor.*

356. **PUBLIC OPINION AND PROPAGANDA** The formation and control of public opinion in a democracy. Analysis of mass communication (press, radio, film, and television); propaganda techniques; the causation of social attitudes; problems of public opinion polling. *Prerequisite: Two courses in political science or sociology.*

357. **POLITICAL PARTIES AND PRESSURE GROUPS** A study of the functions, structures, and operations of American political parties and pressure groups. The American party system is also compared with major European party systems. *Prerequisite: 211.*

360. **COMPARATIVE POLITICAL INSTITUTIONS** British, French, Italian, and German governmental systems are studied as alternative forms of parliamentary democracy. *Prerequisite: 211 or permission of the instructor.*

†361. **EUROPEAN POLITICAL INSTITUTIONS** The institutions of the Common Market, the Coal and Steel Community, and the European Atomic Community are studied. The obstacles and alternative policies are given special attention. *Prerequisite: 360.*

364. **INTERNATIONAL LAW AND ORGANIZATION** A study of the principles of law applied to the resolution of legal (as opposed to political) disputes between nations. International organization is studied as a complementary instrument. *Prerequisite: 240.*

366. **THE POLITICS AND POLICIES OF THE SOVIET UNION** The recent institutional and theoretical development of the Soviet state. Special emphasis upon the principal ingredients of the Soviet monolith: Communist ideology, the Party, the Army, and the use of terror, bureaucracy, planned economy, and Communism as a world movement. The purpose of the course

†Currently offered only in Bologna.

is to provide a background for informed analysis and evaluation of the Soviet totalitarian challenge to American democratic values and institutions.

370. FORMULATION OF AMERICAN FOREIGN POLICY An analysis of the methods by which foreign policy is formulated and executed as well as the study of American programs and problems in the major areas of the world. Policies concerning disarmament, economic and military aid, and the United Nations are also considered. *Prerequisite: 211 or permission of the instructor. History 381 is recommended.*

375. AMERICAN NATIONAL SECURITY POLICY The objective of the course will be to analyze the formulation and implementation of American national security policy within the context of American society and the international system. "National Security" will not be considered simply in a military/strategic sense but as connoting the preservation of the core values of a society. *Prerequisite: 211.*

395, 396. STUDIES IN MODERN EUROPEAN POLITICS To be offered only in Bologna.

490. SEMINAR A Seminar concerned with selected topics. 1969 topic: Black Radicalism. (Open to Juniors and Seniors, with permission of the Instructor.)

495. SENIOR SEMINAR (Required of all majors.) Topics announced at registration period.

MAJOR: nine courses, including 101 and 495 (or Independent Research) and at least one course from each of the following groups:

Group 1: 211, 230, 243, 335, 345, 355, 356, 357, 375.

Group 2: 341, 350, 353, 354.

Group 3: 240, 347, 348, 360, 364, 366, 370.

MINOR: six courses, including 101.

NOTE 1: Political Science 101 as a basic requirement begins with the class of 1972 or 1973 (if students have not had P.S. 211 in 1968-69 or previously). If a student has had P.S. 211 in 1968-69, distribution requirements as noted in the 1968-69 catalog pertain.

NOTE 2: Majors should note that Political Science is divisible into two general areas which should influence the selection of optional courses: American Government (including the behavioristic administrative field), and the International Field. These fields, of course, can be further subdivided into, say, Comparative Government, Political Theory, Constitutional Law, and Political Behavior.

NOTE 3: Majors specializing in domestic political studies may apply to spend one semester of their Junior year in Washington, D. C. Those specializing in European studies or in International Affairs may apply to spend their Junior year in Bologna, Italy. (See descriptions in the catalog.)

Psychology and Education

Professors Graffam, James, and Wanner**, *Chairman*
Associate Professors Alexander*, Coslett, Hartman

PSYCHOLOGY

The emphasis of the psychology program is the accommodation of the individual patterns of interest and objectives of the students enrolled. The curriculum includes general lecture courses to familiarize the student with major areas of psychology and courses emphasizing discussion and practicum. These latter courses include both laboratory and field experience under critical supervision. Their purpose is to permit the student to acquire the viewpoint of the discipline through the application of theory and of method. Students must complete both General Psychology (Psychology 111) and Experimental Analysis of Behavior (Psychology 220) before they make application to the Department for acceptance as majors.

111. GENERAL PSYCHOLOGY A survey of the various areas of psychological study designed to acquaint students with current viewpoints, findings and techniques of investigation specific to these areas.

132. PERSONALITY PSYCHOLOGY A survey of the major current theories of personality and the relevant empirical and clinical literature. *Prerequisite: 111.*

140. SOCIAL PSYCHOLOGY A survey of the major current theories of social behavior and the relevant findings of field and laboratory studies. *Prerequisite: 111.*

220. EXPERIMENTAL ANALYSIS OF BEHAVIOR An introduction to operant conditioning in particular, and to psychological experimentation and inference in general. Two hours' classroom and four hours' laboratory a week. *Prerequisite: 111.*

* On leave, 1969-1970.

** On leave, fall, 1969.

231. **EDUCATIONAL PSYCHOLOGY** Psychological principles and practices are related to problems of classroom instruction. The course is of special relevance to the students who intend careers in teaching. The areas of social and personality psychology are emphasized as well as the traditional learning and cognitive theory. Field study of pupil behavior in the public school supplements the classroom work. *Prerequisite: III, and also called Education 231.*

276. **ABNORMAL PSYCHOLOGY** An introduction to the field which provides a valuable background for premedical students and students who contemplate careers in various social and psychological service areas. Various mental illnesses are described and techniques of diagnosis and treatment are discussed. *Prerequisite: III.*

320. **EXPERIMENTAL GENERAL PSYCHOLOGY** A presentation of the facts and methodology of certain areas which have a historically fundamental importance in shaping current psychological thought. These areas are primarily psychophysics, sensation, perception, motor learning and verbal learning. Students perform illustrative experiments taken from each of these areas. Two hours' classroom and two hours' laboratory a week. *Prerequisite: 220.*

321. **ADVANCED EXPERIMENTAL: CONDITIONING** The principal objective of this course is to develop the critical skill of the student in relating psychological theory to empirical data. Considerable emphasis is placed on expository writing which is subjected to intensive criticism and correction. The subject matter consists of advanced problems in operant conditioning with special emphasis on the areas of punishment, avoidance and escape. *Prerequisite: 220.*

326. **PHYSIOLOGICAL PSYCHOLOGY** The structure and function of the nervous system are reviewed with respect to their role as variables in the behavioral processes. *Prerequisite: III.*

337. **DEVELOPMENTAL PSYCHOLOGY** A presentation of the principles and empirical facts of human development as related to infrahuman development and with particular attention to the methodology of empirical observation. Field studies of children supplement the classroom work. *Prerequisite: 220.*

339. **PRINCIPLES OF COUNSELING** The theories and techniques of counseling with emphasis upon the interdependence of educational, vocational and personal problems. *Prerequisite: III.*

341. **INDUSTRIAL PSYCHOLOGY** A survey of psychological principles and findings applied to problems in business and industry. Training, selection, evaluation, attitudes and morale are areas receiving particular emphasis. *Prerequisite: III.*



361. INTRODUCTION TO CLINICAL PSYCHOLOGY An overview of clinical psychology, both as an academic discipline and as a professional art and including behavior problems encountered, their diagnosis and treatment. *Prerequisite: 220 and permission of the instructor.*

376. JUNIOR SEMINAR A reading and conference course on selected topics. *Prerequisite: Permission of the instructor.*

451. HISTORY OF PSYCHOLOGY An examination of the continuous growth and interaction between thinking and empirical discovery by which the present science of psychology grew from earlier philosophies and sciences. *Prerequisite: 220, 320. Relevant experience in certain areas such as philosophy may be substituted with permission of the instructor.*

461. PRECLINICAL PSYCHOLOGY I: PSYCHODIAGNOSTICS The use of psychological tests and observational procedures in describing the behavioral organization of individuals. Supervised field work with children and adolescents supplements the lecture and discussion. *Prerequisite: 132 or 276, 337, 361 and permission of the instructor.*

462. PRECLINICAL PSYCHOLOGY II: PSYCHOTHERAPY The course is intended to provide for further development and integration of the material contained in the prerequisite courses. Emphasis is on viewing the individual as a continuous, dynamic adjustment to his surroundings. Practicum is limited to relationship therapy with children and adolescents under close supervision, and assignments are adjusted according to the student's demonstrated level of skill and his acceptance of the requirements of supervision. *Prerequisite: 276, 461 and permission of the instructor.*

471. SYSTEMATIC PSYCHOLOGY I An advanced course for selected students with a strong background in experimental psychology. The sequence of topics is positivistic philosophy, review of selected topics in conditioning theory, Hull and Tolman. *Prerequisite: 320, 321.*

472. SYSTEMATIC PSYCHOLOGY II A continuation of 471 in which Freud is extensively considered with respect to his influence on the current theories of personality dynamics. *Prerequisite: 471.*

481, 482. SENIOR SEMINAR Readings, reports and discussions will be employed in an examination of central problems of present-day psychology. *Prerequisite: Permission of the instructor.*

MAJOR: nine courses, including 111, 220, 320, 451 and Mathematics 221 or 321.

MINOR: six courses.

NOTE: All students who intend to apply for acceptance as psychology majors in the Spring of 1970 must register for Psychology 220 for the Spring 1970 term.

EDUCATION

The teacher education program consists of (1) basic coursework, and (2) the Professional Semester in Teacher Education. Basic coursework consists of the following courses:

Ed. 221—Social Foundations of Education

Psy. 111—General Psychology (will satisfy Division II-3 distribution requirement)

Psy. 231—Educational Psychology (Prerequisites: Ed. 221, Psy. 111)

These basic courses are prerequisites for filing application for admission to the Professional Semester. They are normally scheduled during the first two years of study. During the Junior year, teacher education candidates make *formal* application to the Department of Education and Psychology for admission to the Professional Semester in Teacher Education, either for the fall or spring semester of the Senior year. Applications must be returned to the Director of Student Teaching not later than the close of the fall semester.

Candidates' applications are reviewed by a faculty committee; approved candidates are notified prior to spring pre-registration. APPROVED CANDIDATES ARE LIMITED TO THE ACTUAL WORK OF THE PROFESSIONAL SEMESTER WITH THE FOLLOWING EXCEPTION: *independent study and departmental honors programs which are scheduled so as to not interfere with professional semester offerings may be carried concurrently* when approved by the Committee on Academic Standards.

The Professional Semester consists of block-scheduled, concentrated professional education courses and full-time observation and supervised student teaching in a nearby, cooperating public school system. It includes:

First half of semester:

Ed. 433—Educational Principles, Curriculum and Special Methods in Subject Areas

Ed. 443—Educational Evaluation ($\frac{1}{2}$ course)

Ed. 451—The Use of Instructional Media ($\frac{1}{2}$ course)

Second half of semester:

Ed. 461-462—Observation and Supervised Student Teaching.

221. SOCIAL FOUNDATIONS OF EDUCATION Emphasis is on the role of the school in the social setting, the functions of schools in a changing society, community influences upon education, and the teacher's role in community and school. The historic development of the secondary school program in America is traced and compared with national systems of education in other countries. *Open to Freshmen with permission of the instructor.*

231. EDUCATIONAL PSYCHOLOGY See Psychology 231.

433. EDUCATIONAL PRINCIPLES, CURRICULUM, AND SPECIAL METHODS IN SUBJECT AREAS Instruction in the planning, organizing, and conducting of instructional activities; in the developing of effective class management procedures; and in effectively using curricular materials and evaluative devices. Much of the course is devoted to the specialized field in which certification is sought. *Prerequisite: 221, 231, and admission to the professional semester.*

443. EDUCATIONAL EVALUATION An introduction to evaluation principles and techniques focusing upon both teacher-made achievement tests and standardized measurement instruments including testing terminology types of instruments, selection procedures, and techniques for administering, scoring, tabulating, and interpreting test data. *Prerequisites: 221, 231, and admission to the professional semester. One-half course.*

451. THE USE OF INSTRUCTIONAL MEDIA A survey of all devices, techniques, and media available to today's teacher. Attention is given to research findings, and to projected developments. Students are required to prepare materials and to gain experience with many media. *One-half course.*

461-462. SUPERVISED STUDENT TEACHING AND OBSERVATION Observation and supervised student teaching is done at nearby cooperating public secondary schools in the student's area of specialization on a full-time basis for eight weeks. This is under the direction of College and public school advisory personnel. Seminars in student teaching are conducted by the Director, who handles assignment arrangements. Travel and personal expenses incurred are the responsibility of the student. *Prerequisite: 221, 231 and admission to the professional semester.* There is a laboratory fee of \$35.

MAJOR: this department does not offer a major in education. The student preparing to teach completes his major in another department of the College.

MINOR: six courses in departmental course work.

PUBLIC SPEAKING See Dramatic Arts and Public Speaking

Religion

Associate Professors Bechtel, *Chairman*, and Booth*
 Assistant Professors Butler, Kaylor, and Slotten

Courses are designed to investigate the nature and implications of the phenomena of religion, recognizing both their relationships with other facets of human culture and their own particular characteristics. Special emphasis is given to the heritage of Judaism and Christianity as peculiarly relevant to Western culture. A major or minor will provide an understanding, appropriate to the educated man, of a vital dimension of human activity, and a background for graduate or professional education in the humanities and social sciences (e. g., medicine, law, education, social work), and in religion.

The department conceives of its offerings as structured in three areas, as follows: (1) Phenomenology and History of Religions—110, 111, 112, 311, 312, 313, 314; (2) History of Christian Thought and Institutions—121, 122, 321, 322, 324; (3) Biblical Studies—131, 132, 331, 332.

Students lacking a specified prerequisite course may qualify to enter an advanced course by satisfying the instructor of mastery of a short bibliography drafted by the department to encourage independent preparation for the course.

110. WESTERN RELIGION AND CONTEMPORARY CULTURE Interpretive analyses of aspects of contemporary culture—literary, social, and institutional—from both secular and theological sources; inquiry into the dimensions of religion in culture—personal, social-ethical, and ecclesiastical.

111, 112. INTRODUCTION TO THE HISTORY OF RELIGIONS An introduction to the religions of the world, including a study of their doctrines and practices, and an inquiry into the historical and phenomenological methods of interpreting religions. 111: primitive and Far Eastern religions; 112: religions of the ancient Mediterranean, the Near East, and Western Culture.

* On leave, 1969-1970.

121, 122. **INTRODUCTION TO THE HISTORY OF CHRISTIAN THOUGHT** An introduction to principal themes, their origin and development; an inquiry into their meanings and into their historical, cultural, and biographical contexts. 121: ancient and medieval Christian thought; 122: reformation and modern Christian thought.

131, 132. **INTRODUCTION TO BIBLICAL STUDIES** An introduction to the history, literature, and thought of the Bible, including an examination of the methods of Biblical criticism and interpretation. 131: Introduction to the Hebrew Scriptures (The Christian Old Testament); 132: Introduction to the New Testament.

311. **STUDIES IN THE HISTORY OF RELIGIONS** Advanced studies in the Phenomenology and theory of religions. Specific topics to be announced each year. *Prerequisite: 111 or 112 or permission of the instructor.*

312. **STUDIES IN THE HISTORY OF RELIGIONS** Advanced studies in selected major religions. Specific topics to be announced each year. *Prerequisite: 111 or 112 or permission of the instructor.*

313. **INTRODUCTION TO AMERICAN RELIGIOUS CULTURE** An historical and phenomenological examination of the American religious scene, with attention to the interaction between the Jewish and Christian traditions, their various "little traditions," secularism, and civil religion. *Prerequisite: One course in Religion or permission of the instructor.*

314. **READINGS IN POST BIBLICAL JUDAISM** An inquiry into the meaning of Post Biblical Jewish existence during selected eras using historical, phenomenological, and theological methods of examination. *Prerequisite: One course in Religion or permission of the instructor.*

321. **STUDIES IN THE HISTORY OF CHRISTIAN THOUGHT** Advanced studies in selected men, movements, and ideas, with principal reliance on primary documents. Specific topics to be announced each year. *Prerequisite: 121 or 122 (depending on the topic), or permission of the instructor.*

322. **STUDIES IN CONTEMPORARY THEOLOGY** Advanced studies in selected men, movements, and ideas. Specific topics to be announced each year. *Prerequisite: 122 or permission of the instructor.*

324. **CHRISTIAN ETHICS** A systematic study of Christian Ethics as a theoretical and practical discipline as applied to sexual, family, economic and political relations, and to racial and international structures. *Prerequisite: One course in Religion or permission of the instructor.*

331. **STUDIES IN THE NEW TESTAMENT** Research and discussion in selected areas and problems. Specific topics announced each year. *Prerequisite: 132 or permission of the instructor.*

332. STUDIES IN HEBREW SCRIPTURES (THE CHRISTIAN OLD TESTAMENT) Research and discussion in selected areas and problems. Specific topics announced each year. *Prerequisite: 131 or permission of the instructor.*

401. COLLOQUIUM Required of all senior majors and open to selected non-majors. Format and content determined each year.

MAJOR: nine courses, including 401 and at least two courses from each of the following three groups (the remaining two courses being normally in a single area). For those wishing recommendation for graduate work in Religion, the supporting course Philosophy 240.

Group A: 110, 111, 112, 311, 312, 313, 314.

Group B: 121, 122, 321, 322, 324.

Group C: 131, 132, 331, 332.

MINOR: six courses, including at least one course in each of the preceding three groups. At the discretion of the department, a student may substitute 401 for one of these courses.

Russian and Soviet Studies

Assistant Professor Rhyne, *Coordinator*

An interdisciplinary program designed to give a thorough coverage of the Russian and Soviet areas—presented through the departments of economics, history, modern languages, political science, and sociology-anthropology.

401. INTERDISCIPLINARY SEMINAR Seminar intended to integrate the several approaches of the Russian and Soviet Studies program and to provide a framework for independent study of a comparative nature. Offered cooperatively by the staff of the program. *Prerequisite: Open only to, and required of, majors and minors in the program.*

MAJOR: Russian 331, 332 or Russian 333, 334; History 253, 254; Russian and Soviet Studies 401; and four courses of the following, of which no more than two may be taken from the same discipline:

1. History 313*

2. Political Science 350, 366, 490*

* *When the topic is approved by the coordinator.*

3. Economics 376
4. Russian 352, 353; 354**; 355**
5. Religion 321(b)
6. Sociology 314
7. Independent Studies*

MINOR REQUIREMENT A. Strongly recommended for those applying to graduate school in areas focusing on Russian or Soviet studies: Russian 212, History 373, 374, Russian and Soviet Studies 401, and three courses from the following, of which no more than two courses may be taken from one group:

1. History 313*
2. Political Science 350, 366, 490*
3. Economics 376
4. Russian 331, 332; 333, 334
5. Russian 352, 353; 354, 355
6. Religion 321(b)
7. Sociology 314
8. Independent Studies*

MINOR REQUIREMENTS B. Recommended for those who do not plan to use the minor as a foundation for graduate work: History 373, 374; Russian and Soviet Studies 401; two courses from among Russian 352, 353, 354, 355; and three course from the following, of which no more than two may be taken from the same discipline:

1. History 313*
2. Political Science 350, 366, 490*
3. Economics 376
4. Religion 321(b)
5. Sociology 314
6. Independent Studies*

* *When the topic is approved by the coordinator.*

** *These courses count toward the major only if specified Russian language materials are used.*

Sociology-Anthropology

Associate Professor Kavolis, *Chairman*

Assistant Professors Israel and Seaford

Instructors Clarke and J. Harms

Through a comparative study of the variables and the constants in human behavior, in preliterate, historical, and contemporary

social orders, the department aims at developing an empirically grounded and reasonably sensitive understanding (a) of man's role in creating the conditions of his existence and (b) of the human implications of particular choices within the known range of variation in social organization and cultural values.

111. **SOCIAL BEHAVIOR** An integrated approach to anthropology and sociology. The evolution of man and his culture, with case studies of preliterate and civilized societies. Historical, functional, and interactionist interpretations of social institutions and human relationship.

211. **SOCIAL ECOLOGY** An evaluation of the concepts of social ecology and their application to the interrelationships of population, environment, technology, and organization in the community setting. *To be offered in 1970-1971.*

224. **PERSPECTIVES ON RACE** Race relations in the American and other societies. Afro-American history, dynamics of prejudice, pathologies of the ghetto, civil rights and Black Power movements and white reactions to them.

225. **FAMILY BEHAVIOR** An examination, within a broad comparative framework, of the social functions of the family; the determinants of family cohesiveness; the effects of different modes of child rearing; the implications of variation in the norms of sexual behavior.

230. **CULTURES OF EAST ASIA** A survey of peoples in China, Korea, and Japan, with special emphasis on the roots of Chinese culture and its diffusion to surrounding societies. The homogeneity and heterogeneity of these cultural areas. *Given in alternate years. To be given in 1969-1970. Prerequisite: 111.*

240. **CULTURES OF LATIN AMERICA** A survey of the archeology and ethnology of Mesoamerica and South America. The fusion of indigenous and Spanish cultural traditions. Current social changes in cultural perspectives. *Given in alternate years. To be given in 1969-1970. Prerequisite: 111.*

301. **GROUP DYNAMICS** The aim of this course is to develop an understanding of the constitutive phenomena of face-to-face interaction and of the commonsense world of everyday life. How actors' inferences and action produce the activities the sociologist calls social structures.

302. **SOCIAL STRATIFICATION** An analysis of social class systems and derivative behaviors. Economy and political power as the tools and the formative agents of social classes. Styles of life and social mobility. *Given in alternate years. To be given in 1970-1971.*



303. **PERSONALITY AND SOCIAL CHANGE** An examination of the changes in personality—values, motivational systems, perceptual modes—that have occurred in the course of history, especially in periods of social crisis, and are occurring in the modernizing and post-modern societies of today. Relationships between changes in the larger social structures and changes in personal character. *Given in alternate years. To be offered in 1970-71.*

305. **METHODS OF SOCIAL RESEARCH** Critical evaluation of sociological work. Consideration is given to the appropriateness of data collection and data analysis methods for different purposes, to criteria of validity of findings, and to assumptions governing the use of various research techniques. Particularly stressed is how research is actually conducted in contrast to how it is said to be conducted.

306. **HUMAN EVOLUTION** Man and his place among the vertebrates. Emphasis on the primates, especially fossil hominids. The role of culture in biological evolution. *Given in alternate years. To be given in 1969-1970. Prerequisite: 111 or Biology 111, 112 or 234.*

307. **COMPARATIVE CULTURES** Studies of simple and complex societies to elucidate the role of culture in the changing human scene. Theory and method in cultural anthropology. Cross-cultural research in the Human Relations Area Files. *Prerequisite: 111 or permission of the instructor.*

314. **SOCIAL SYSTEMS OF COMMUNIST EASTERN EUROPE** Analysis of social structure and dynamics of the Soviet Union, with some attention to other East European societies. Identification of the areas of strain and the different possible directions of change. Comparison with American institutions. *Given in alternate years. Not to be given in 1969-1970.*

322. **POPULATION** Study of population distribution, composition, growth, migration, and vital processes. *Not to be given in 1969-1970.*

324. **FIELD WORK IN URBAN PROBLEMS:** By combining readings, a seminar, and direct involvement, this course is designed to familiarize the student with the difficulties and complexities involved in applying sociological knowledge to the analysis and solution of urban problems. Individual or collective research, or action projects will be planned by the students and the instructor. These projects are to be carried out within groups or agencies concerned with poverty, racial tensions, community organization and redevelopment, education or other "problem" related aspects of the urban setting. Weekly seminars and individual tutorials will involve a discussion of the ethical, theoretical and methodological materials relevant to the field work experience. *Prerequisite: Permission of the instructor.*

350. **COMPARATIVE SOCIAL PATHOLOGY** Survey of the cross-cultural studies on the social causation of destructive and self-destructive behavior:

suicide, alcoholism, psychiatric disorders, individual and collective violence, prejudice, and extremism.

360. **DEVIANT BEHAVIOR AND SOCIAL CONTROL** Functional, processual, and ethnomethodological approaches to studying behavior called "deviant." The meaning of deviance, its creation and control by the interaction of rules, police, courts and prisons.

365. **RELIGION AND THE SOCIAL ORDER.** A cross-cultural survey of the functions of religion, magic and myth in simple and complex societies. Religion and communication. Myth and social structure. An historical summary of the scientific study of religion. *Given in alternate years. To be given in 1969-70. Prerequisite: 111.*

375. **MECHANISMS OF SOCIAL CHANGE** Evolutionary and cyclical theories of sociocultural change. Action patterns and psychological mechanisms involved in basic social transformations. Causes and structural characteristics of "modernity." *Given in alternate years. To be given in 1969-1970. Prerequisite: 111.*

380. **SOCIOLOGICAL THEORY** How is society possible? Answers to this question offered by major theorists will be critically examined. Discussion of action theory, functionalism, exchange theory and Marxism together with such theorists as Durkheim, Weber, Marx, Merton, Parsons and Homans. *Prerequisite: one course in Sociology other than 305.*

390. **SOCIOLOGY SEMINAR** A specialized seminar, largely for majors, intended to relate a broad area of theoretical concern to the problems and procedures of current research. *Prerequisite: Permission of the instructor.*

392. **ANTHROPOLOGY SEMINAR** A specialized seminar investigating the contributions of various anthropological approaches to the understanding of cultural processes. *Given in alternate years. To be given in 1969-1970. Prerequisite: Permission of the instructor.*

490. **INTERDISCIPLINARY SEMINAR** This seminar provides an opportunity for multifaceted exploration, in a working relationship with representatives of another social or humanistic discipline, of selected problems of joint interest. *Prerequisite: Permission of the instructor.*

MAJOR (in Sociology-Anthropology): nine courses, including 111, 305, or 307, and 380. It is recommended that majors take Mathematics 221, or 321.

MINOR (in Sociology-Anthropology): six courses, including 111, 305, or 307 and 380.

NOTE: When courses offered in other Departments are likely to enrich a major's program in Sociology-Anthropology, he may, with the written approval of his advisor, count up to two such courses toward fulfilling his nine-course major requirement.

Programs Not in a Field of Concentration

Colloquium

100. COLLOQUIUM An interdisciplinary, highly intensive course dealing with various topics of importance common to the various divisions of a liberal arts curriculum. Particular topics to be announced. Offered occasionally. *Prerequisite: Invitation by the staff of the Colloquium.*

Computer Science

Professor Stegink

101. FORTRAN PROGRAMMING An introduction to the IBM 1130 computing system as programmed with FORTRAN. A study of the basic configuration of this machine is included, as well as some intermediate programming techniques. Monitor FORTRAN is also discussed, which allows for relatively large-scale information storage and retrieval. *One-half course.*

Dramatic Arts and Public Speaking

Associate Professor Brubaker
Instructor Mrs. Broujos

DRAMATIC ARTS

The goal is an understanding and appreciation of the theatre arts through creative exercise and a study of theory, practice, and history. In addition to the courses outlined, the College sponsors the Mermaid Players an extracurricular program which gives to all students an opportunity for practical experience in the dramatic arts.

101. ACTING An introduction to the principles and theories of acting combined with practical exercises. One hour of classroom and five hours of laboratory a week. *To be given in 1969-1970.*

201. DIRECTING A laboratory course in directing. Two hours of classroom and three hours of laboratory a week. *To be given in 1969-1970. Prerequisite: 101.*

300. STAGECRAFT AND SCENE DESIGN A study of play production emphasizing scene construction, rigging, painting, design, and lighting. Two hours' classroom and three hours' laboratory a week. *To be given in 1970-1971. Prerequisite: Permission of the instructor.*

302. HISTORY OF THE THEATRE A study of the forms of theatre from primitive ritual to modern times. *To be given in 1969-1970. Previous courses in either history or dramatic literature are recommended.*

PUBLIC SPEAKING

The courses in public speaking are directed toward improvement in verbal communication and toward the development of greater self-assurance and ease in social and professional situations.

223, 224. ARGUMENTATION AND DEBATE The logic and strategy of debate. Group discussion techniques. Participation in debate. One-half course per semester.

333. PUBLIC SPEAKING The theory of and practice in the fundamentals of public speaking. One-half course.

351. ADVANCED PUBLIC SPEAKING Although this is a continuation of Public Speaking 333, increased attention is given to speech structure and to filling various specific speech situations. Offered occasionally. *Prerequisite:* 333. One-half course.



Film

Mr. Gillespie

201. HISTORY AND ART OF THE FILM A study of the history of the film as an art form, with emphasis on developing fruitful critical standards for the judgment of films. *To be offered in the summer only.*

Humanities

101. An interdisciplinary examination of selected Western literary, philosophical and religious forms, ideas, and movements. Special attention will be given to exploring ways these creative expressions have developed a contemporary focus in the problems of cultural and self understanding. Specific organizing themes may change from term to term. *Open to freshmen only.*

401. A seminar designed to deal at an advanced level with topics appropriate to the subject matter of Humanities 101. Enrollment limited in any semester to the student associates concurrently on the staff of Humanities 101.

Military Science

PMS: Lieutenant Colonel Bond

Asst. PMS: Major Noyes, Captain Barber, Captain Robinson,
and Captain Reeves

Senior Enlisted Instructor: Sergeant Major Wolford

The voluntary General Military Science (GMS) program qualifies selected students for a second lieutenant's commission in one of fourteen branches of the United States Army Reserve and incurs a two-year active duty obligation. Outstanding students motivated to a military career may be offered a commission in the Regular Army.

The two-year ROTC program is also offered. (See Note 2.)

101-102. LEADERSHIP LABORATORY I Two hours per week for the entire school year.

111. MILITARY SCIENCE I The United States Defense Establishment; American Military History. Three hours of classroom work per week for one semester. (*Freshman year only.*) *One course credit.*

201-202. LEADERSHIP LABORATORY II Two hours per week for the entire school year. *Prerequisite: MS 102.*

211. MILITARY SCIENCE II Introduction to Tactics and Operations. Three hours of classroom work per week for one semester. *Prerequisite: MS 111 (Sophomore year only). One course credit.*

321-322. MILITARY SCIENCE III Leadership and Management I; Fundamentals and Dynamics of the Military Team I. Two hours of classroom work and two hours of leadership laboratory per week. One-half course credit each semester. *Prerequisites: MS 202, 211 and permission of the PMS, or acceptance into the two-year R.O.T.C. program to include satisfactory completion of a six-week Basic R.O.T.C. camp. (See Note 2.)* Students in the Advanced R.O.T.C. program receive a \$50.00 monthly subsistence allowance.

431-432. MILITARY SCIENCE IV Leadership and Management II; Fundamentals and Dynamics of the Military Team II. Three hours of classroom work and two hours Leadership Laboratory per week for the entire school year. *Prerequisite: MS 322. One course credit each semester.*

NOTES

1. Requirements For Commissioning: Students must successfully complete all Military Science and Leadership Laboratory courses to qualify for commissioning. Applicants for MS III must pass a qualifying examination and meet physical standards prior to enrollment. Enrollees successfully completing MS III are required to attend camp under direct Army supervision for six weeks, normally in the summer between their junior and senior years.

2. A basic summer camp is conducted in conjunction with the two-year R.O.T.C. program during the summer between the sophomore and junior years. Students who have transferred from colleges not offering R.O.T.C., or who have not completed MS II, are eligible to apply for the basic summer camp. Students who complete the camp satisfactorily are eligible for enrollment in the MS III course. Applications should be made by February 15.

3. Advanced standing in Military Science is given students with previous military instruction or experience. Students should consult the PMS.

4. Students planning to participate in off-campus study programs may arrange their schedules with permission of the PMS to allow the completion of commissioning requirements.

5. One semester of credit for Physical Education will be received for each semester of MS 101, 102, 201 and 202 successfully completed.

Physical Education

Associate Professors DuCharme, *Chairman*, Eavenson, Go-breht, and Seibert

Assistant Professors Barber, Wagner, and Watkins

Instructors Marshall and Nickey

Physical education is required of all men and women. This work is scheduled in the freshman and sophomore years, two hours each week, for each semester. For transfer students, proof of satisfactory completion of the equivalent amount of physical education must be presented. Credit in physical education will be given for previous military service on the basis of two semesters for each six months of military service. Credit for Leadership Laboratory in the R.O.T.C. program will also be given on the basis of one semester of Physical Education for each semester of R.O.T.C. Leadership Laboratory 101, 102, 201, or 202. *The total of four semesters in physical education required for graduation must be met by the end of the Junior Year.*

FRESHMEN: The work is composed of instruction and practice in those activities which will provide for physical fitness of the individual, such as formal calisthenics, tumbling, dancing, women's field hockey, lacrosse, touch football, volleyball, softball, and swimming.

SOPHOMORES: The work is composed of instruction and practice in individual activities of a nature that will have a definite carry-over value, such as golf, tennis, badminton, swimming, squash, horseback riding, archery, bowling, first aid, skiing, and creative dances.

Science

Professor Crist

258. HISTORY OF SCIENCE In tracing the major developments in science as an aspect of Western civilization, special attention will be devoted to the following areas: the scientific method of inquiry; social consequences of scientific discovery; noted discoveries in the physical and life sciences. This course may be counted as one of the required distribution courses in Division III.

CONTEMPORARY SCIENCE Exploration of the nature and growth of some of the major concepts by which science explains the phenomena of nature.

261. This course deals primarily with aspects of modern physics, and of geo-physics as it relates to the evolution of the physical character of the earth and solar system.

262. Development of those concepts that relate to our knowledge of matter, with references to chemistry of the earth and especially to contemporary science and its implications for man.

These courses are intended primarily for non science majors. They may be counted toward the required distribution courses in Division III for A.B. candidates. Prerequisite: one year of a laboratory science.

Social Science

Interdepartmental offerings in the social sciences, which include economics, political science, social psychology, and sociology.

101. **INTRODUCTION TO SOCIAL SCIENCE** Concepts basic to anthropology, economics, political science, and sociology are developed and illustrated through the study of human problems such as violence and inequality. An interdisciplinary approach is stressed, with attention to both the empirical and normative dimensions. Professor Andrews—coordinator.

104. **INTRODUCTION TO CHINESE CIVILIZATION** Application of key concepts of the various social sciences, e.g., social change, traditional and modernizing societies, economic growth, ideologies, comparative social developments, to Chinese civilization and culture. Professor Flaherty—coordinator.



Special Programs of Study

The College offers a number of special programs of study which enrich the regular offerings of the several major departments and the normal curriculum. Dickinson believes that interdisciplinary programs, independent study, off-campus study, and other variations on the normal, on-campus, four-year, in-course degree program are important ingredients for heightened intellectual motivation.

ASIAN STUDIES. By arrangement with the University of Pennsylvania Dickinson students may, upon recommendation by the student's major department and approval by the Dean of the College, elect to complete the requirements for the Bachelor of Arts degree at Dickinson by completing a program of Asian Studies in residence at the University of Pennsylvania during the entire senior year. Such election shall be contingent upon acceptance by either the Department of South Asian Studies or the Department of Oriental Studies at the University of Pennsylvania. The student planning such a program normally should expect to enroll for intensive language study during the summer prior to the senior year at the University of Pennsylvania. If

recommended for graduate study in the same field by the department in which the student is enrolled, the student should anticipate further intensive language study during the summer immediately following completion of the senior year.

RUSSIAN AND SOVIET STUDY. The departments of economics, history, modern languages, political science, and sociology-anthropology have cooperated to establish an interdisciplinary major in Russian and Soviet studies. A major in the area requires up to eight semesters of Russian language, two semesters of Russian history, two of three designated courses in the departments of economics, political science, and sociology, and a one-semester interdisciplinary seminar in the senior year. Since the program has a number of prerequisites, it is imperative that prospective majors plan their programs carefully from the beginning by consultation with the faculty coordinator of the program. See page 115.

AMERICAN STUDIES. An integrated major program of study in American culture is supported by six departments of the College—economics, English, fine arts, history, philosophy and religion, and political science. Blending the resources of these departments, the American Studies Program illuminates the American Heritage, its history and ideals, political, social, cultural, and economic institutions, folkways and art, natural setting, intellectual life, and contemporary problems. An integrated approach to American materials, the American Studies Program explores interrelationships of major influences which shape American civilization. It also seeks to appraise America's growing involvement with the world. See page 49.

THE WASHINGTON SEMESTER. In cooperation with The American University and an allied group of colleges and universities, this College offers four high-ranking juniors the opportunity to study during the spring semester at The American University, Washington, D. C. These students should preferably be majors in economics, history, political science, or sociology and are

required to have taken Political Science 211 (American Government). Application must be made in October to the Dickinson coordinator of the Washington Semester program.

PROGRAMS FOR ENGINEERING STUDENTS. Dickinson College furnishes a program for engineering students that combines advantages of the smaller liberal arts college with training to be secured at a large urban engineering school. By arrangement with the University of Pennsylvania Engineering Schools, Rensselaer Polytechnic Institute, and the Case Institute of Technology, the College offers a five-year course. The first three years are spent at Dickinson, the final two at the engineering school selected. The combined plan recognizes the defects inherent in specialization in the engineering schools, and provides for the Dickinson student a generous background in pure science, in the humanities, and in the social sciences. Thus in five years the engineering student may secure a degree in liberal arts from Dickinson College and one in engineering from the engineering school which he attends.

The combined plan is available only to the student who enters the College not later than the beginning of his Sophomore year. Candidates for an engineering program should inform the Dean of Admission of Dickinson College that they wish to apply for this program so they may be assigned to the Engineering Student Adviser. The student in his Freshman year should take Physics 131, 132 and Mathematics 131, 132. Students interested in this program should request from the Dickinson Admissions Office a special booklet which describes the "Three-Two Engineering Plan" in greater detail and gives suggested course schedules.

THREE-YEAR DEGREE PROGRAM. Students desiring to accelerate their degree programs may do so by enrollment in the summer session of the College. A carefully planned degree program, particularly in the first two years, may be completed in three regular academic years (six semesters) and two full summer sessions. Some will find it wise to begin the summer before the Freshman

year in order to have a summer free in between the second and third years. One of the advantages of the accelerated degree program is the substantial saving in time, as well as cost, to the student.

SUMMER SCHOOL. A representative selection of Dickinson's courses is offered during the two summer sessions. Regularly enrolled Dickinson students may attend these sessions for enrichment or to accelerate their academic progress. Students in good standing at other colleges are welcome. Qualified high school students may enroll in regularly scheduled summer classes. Entering freshmen are encouraged to attend one session of Summer School. The separate Summer School *Bulletin* may be secured from the Director of Summer School.

Several institutes have been established that bring together advanced students from diverse educational institutions. Further information will be published in the Summer School Bulletin and will be available from directors of the respective institutes.

Incoming freshmen are invited to participate in a three-week interdisciplinary Dickinson Colloquium. A brochure describing this unique educational experience is available from the Director of Summer School.

ARMY ROTC PROGRAM. In 1952 the Department of the Army approved the establishment of a General Military Science (GMS) program at Dickinson College. Enrollment in the program is voluntary. Successful completion of the ROTC Advanced Course (junior and senior years) earns a Second Lieutenant's commission in the U.S. Army Reserves at College Commencement. A Regular Army commission may be offered to outstanding students. Assignment to any one of thirteen basic branches of the Army is offered.

The normal program is four years. The basic course of the freshman and sophomore years qualifies the student to apply for enrollment in the advanced course. However, junior college transfer students and outstanding non-ROTC sophomore men who for good reason could not schedule the basic course may

apply for the two-year ROTC program. If selected, a six-week basic summer camp substitutes for the ROTC basic course and qualifies the student to enter the advanced course in his junior year.

Prospective members of the ROTC program should be cognizant of the demands of the program upon his academic schedule. Of the thirty-six courses required for graduation five must be committed to military science—one in each of the first three years and two in the senior year. Three credits are allocated for the two-year program. The ROTC schedule can be adjusted to accommodate the foreign study programs of the college.

Two types of Army ROTC Scholarships are available under the terms of Public Law 88-647. The four-year scholarships pay all college tuition, fees, texts and class supplies, and provides the scholarship student a \$50.00 monthly subsistence payment for his four years of college. High school seniors must apply to the U.S. Army Headquarters in their area by not later than 15 January annually in order to compete for the four-year scholarships. A limited number of two-year scholarships are awarded to ROTC sophomore students for their junior and senior years. Scholarship recipients must agree to accept a Regular Army Commission, if offered, and to serve on active duty for four years.

All advanced course students receive the \$50.00 monthly subsistence payments and are deferred from active military service for the duration of their enrollment in the ROTC program.



Study Abroad Programs

CENTER FOR INTERNATIONAL STUDIES IN BOLOGNA. Students interested in a junior year abroad to study international affairs with emphasis on European politics, history, and economics may apply for admission to the College's program in Bologna, Italy. Twenty-five students are selected each year for study at the Dickinson Center, which is affiliated with the Johns Hopkins Graduate Center in Bologna, under the supervision of a member of the Dickinson College Faculty. The curriculum includes regular courses (such as International Relations, History of Right Wing Movements in Europe, and International Economics), independent studies, and the Johns Hopkins graduate lectures on European Integration. Courses are taught in English by the Dickinson director and by faculty members from Johns Hopkins and Italian universities. Field trips scheduled as part of the regular coursework include a tour of the NATO and European Community headquarters and a trip to southern Italy as part of the developing areas course. Participants are required to have had either one semester of Italian or two years of college French or Spanish. The cost of participation includes tuition and fees, room and board, and transportation to Bologna. Interested students should consult with the resident coordinator.

INSTITUTE OF EUROPEAN STUDIES. The problems of study

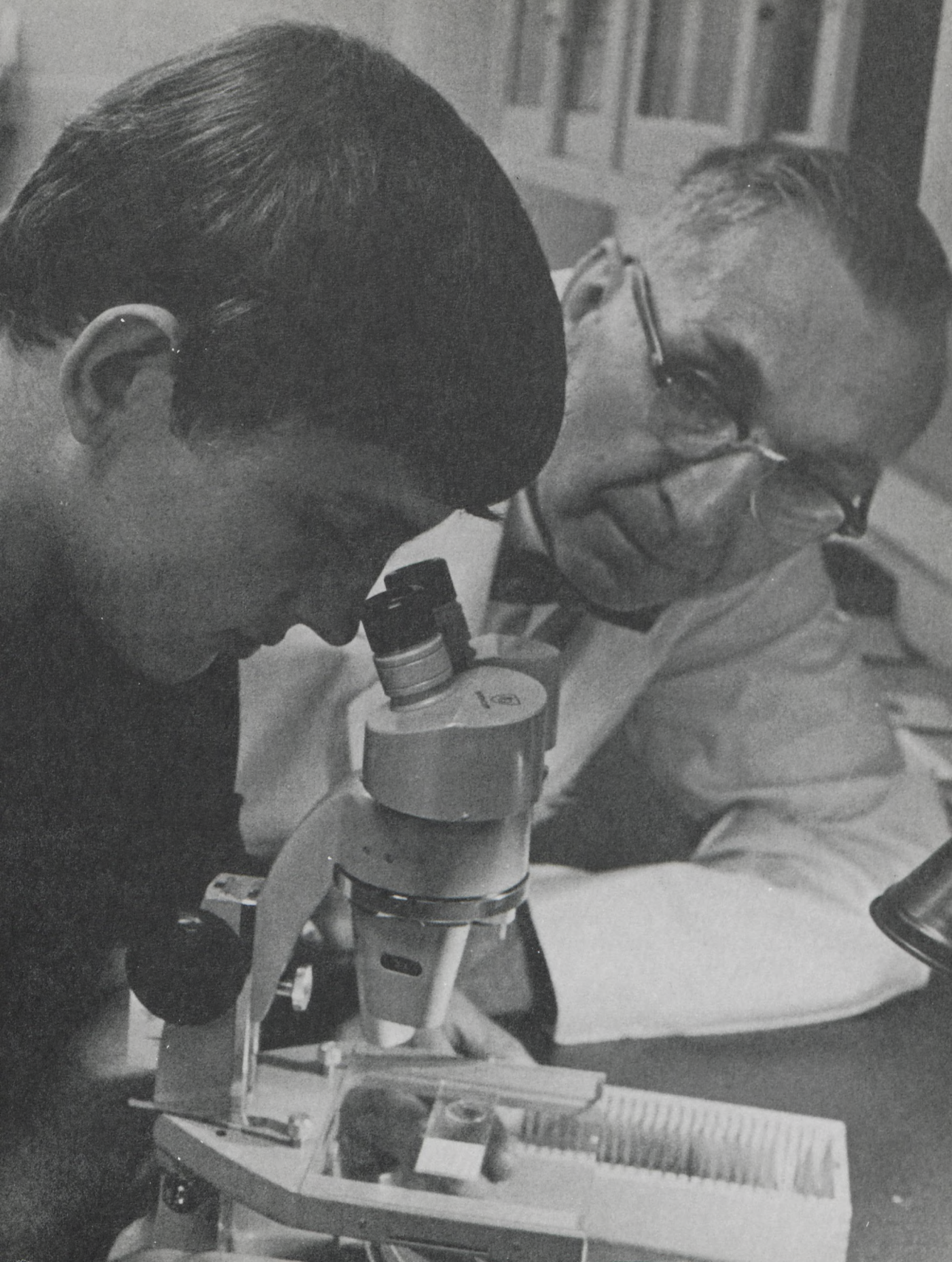
abroad—admission to the better American programs, satisfactory housing, credit transfer, assessment of course equivalents—are resolved for Dickinson students by virtue of the College's membership in the Council of Affiliated Institutions of the Institute of European Studies. The IES is administered by American educators and operates programs at five leading European university centers (Freiburg, Madrid, Nantes, Paris, and Vienna), with a sixth to be opened in Durham, England, in 1970. The directors of the European programs are experienced academicians, aware of and accustomed to dealing with the difficulties of integrating a student's foreign study program with that of his home institution. As well as offering, in each center, a core of courses taught within the Institute by university professors, the IES enables qualified students to enroll in regular courses within the faculties of the European university itself. It arranges for transport to the European center, for suitable housing and meals, as well as for mandatory orientation programs, language refresher courses, and individual counseling to students during their entire period of foreign study. Students recommended for admission by the College are automatically accepted. For further information consult the Associate Dean of the College.

OTHER PROGRAMS OF STUDY ABROAD are available through other colleges and universities. Language programs must be approved by the chairman of Modern Languages. Other programs must have approval of the chairman of the department in which the student is to major. Credit may be granted for this work provided the Associate Dean of the College approves it *in advance* and the student presents a satisfactory certificate of accomplishment. This plan is available only to the student who enters the College not later than the beginning of his sophomore year. Forms may be secured in the Office of the Registrar.

INDIA INSTITUTE—During the summers of 1968 and 1969 Dickinson, in cooperation with other Central Pennsylvania Consortium Colleges has sponsored a study of Indian art and religion which has included an extensive field trip in India.

Central Pennsylvania Consortium Offerings

Courses taken at Central Pennsylvania Consortium colleges (Franklin & Marshall, Gettysburg, Wilson, and Dickinson) are treated as are Dickinson courses. Prior to registration in a Consortium College's course, a Dickinson student must have a 2.0 cumulative average and receive the approval of his adviser, the department in which the course is to be credited, and the Associate Dean of the College.



Academic Regulations*

Class Designation

The Freshman, Sophomore, and Junior years are normally interpreted as the first, second, and third college years of attendance as a regular student. A student will be registered as a sophomore when he has completed 10 courses creditable toward graduation, as a junior when he has completed 20 courses creditable toward graduation, and as a senior when he has completed 27 courses creditable toward graduation.

The Senior year is normally the fourth year of college attendance, but it may occur earlier or later. If a student has not attained the required 27 courses at the end of the second semester of his junior year, he will be allowed one additional semester as a junior. If he cannot enter the senior year after such additional junior semester, he will be required to withdraw.

**Changes in Regulations: The College reserves the right to change its regulations, courses of study, and schedule of fees without previous notice to the student.*

A student is expected to be graduated at the end of his senior year. If he has not satisfied the requirements for graduation at the end of the second semester of his senior year, he will be allowed one additional semester as a senior. If he cannot be graduated at the end of such additional senior semester, his status will be considered by the Faculty.

In the case of a student entering Dickinson with advanced standing because of work done at other institutions, the Committee on Admissions and Student Aid will determine his status as to class. In all other cases involving such irregularities as work done outside the Dickinson College Year, the Dean of the College will determine the student's class.

Classification of Students

A *matriculated* (formerly *regular*) student is one who has been formally admitted to the College as a degree candidate. A *non-matriculated* (formerly *unclassified* or *special*) student is one who has not been formally admitted as a degree candidate. A *full-time* student is a senior or junior carrying 3 to 4½ courses, a sophomore or freshman carrying 4 to 5 courses, or a nonmatriculated student carrying 3 or more courses. A *part-time* student is one who is carrying less than a full-time academic load.

Normally, a matriculated student will be a full-time student, and a nonmatriculated student will be a part-time student. However, subject to the prior approval of the Committee on Academic Standards, a matriculated student may be a part-time student and a nonmatriculated student may be a full-time student. Such approval is for one year only and must be renewed annually.

A nonmatriculated student who desires to become a matriculated student must receive the approval of the Committee on Admissions and Student Aid. In seeking such approval, the

student must submit all transfer credit taken to date that he plans to apply toward the Dickinson degree. In general, he must meet all the requirements for graduation in effect at the time he is accepted as a matriculated student, including the fact that he must be accepted as a major by some department by the time he has completed 24 courses. Failure to be accepted as a major entails required withdrawal from the College without the privilege of readmission. In addition, a nonmatriculated student must meet the same requirement as a transfer student, i.e., he must complete 16 courses as a matriculated student.

1. *Full-time matriculated*

Students who have been admitted as degree candidates and are freshmen or sophomores carrying four or five courses or juniors or seniors carrying three to four and one-half courses are full-time matriculated.

2. *Part-time nonmatriculated*

Students who have not been admitted as degree candidates and are freshmen or sophomores carrying less than four courses or juniors or seniors carrying less than three courses are part-time nonmatriculated.

3. *Part-time matriculated and full-time nonmatriculated*

Such status can be granted subject to the approval of the Committee on Academic Standards. Approval may be granted for one semester or one year and is renewable.

4. *In absentia*

This status may be granted for one semester or one year by the personnel deans and the Dean of the College. Students who return on schedule do not need to apply for formal readmission. Students who do not provide due notice (sixty days) of a change in the date of expected return or who are not granted an extension of the return date must apply for formal readmission. Students may transfer in up to one full year of academic work if prior approval of the program has been granted by the Associate Dean of the College.

- A. Dickinson-sponsored off-campus programs (Center for International Studies in Bologna; the Washington Semester; Asian Studies—University of Pennsylvania; Institute of European Studies)

A student in this status completes registration and pays tuition and fees as a Dickinson student.

- B. Approved off-campus study

A student in this status does not register or pay tuition and fees as a Dickinson student; he must, however, secure prior approval for his program of study.

5. *Leave of absence*

This status may be granted for one semester or one year by the personnel deans and the Associate Dean of the College and is subject to renewal. Students who return on schedule do not need to apply for formal readmission. Students who do not provide due notice (sixty days) of a change in the date of expected return or are not granted an extension of the return date must apply for formal readmission. Students may not transfer in any course work.

- A. Voluntary

A student may be granted this status providing it does not begin after the date of roll call for any given semester. No grades will be recorded for the semester during which this status is effective.

- B. Required

A student may be required by the Associate Dean of the College to take up to one semester's leave of absence if such action is judged to be in the student's academic interest.

6. *Withdrawal*

- A. Voluntary

A student may withdraw voluntarily at any time. "W" grades will be recorded if the voluntary withdrawal is made between roll call and the first day of final examinations. If withdrawal is made during the final examination period, regular grades will be recorded. A student who withdraws must make formal application for readmission.

B. Required

- (1) First—a required withdrawal for academic reasons. To qualify for readmission, the student must attend an accredited college elsewhere for one regular semester (not a summer session); have his program of study approved in advance by the Associate Dean of the College; and attain a minimum average of at least 2.25 with no grades lower than a C. Military service or satisfactory employment, normally for at least one year, may be substituted for this scholastic experience. A student who is required to withdraw must make formal application for readmission.
- (2) Second—a student required to withdraw for a second time for academic reasons does not have the privilege of applying for readmission at any time.
- (3) Unsatisfactory performance—The college reserves to itself the right to remove from its roll at any time a student who proves unsatisfactory or to require a student to withdraw if it is felt that the student is out of sympathy with the spirit and ideals of the College, even though he may not have broken any formal rules.

Registration and Advising

In the summer prior to matriculation the Dean of Admission, in cooperation with the Registrar, initiates the course registration of each freshman. This summer registration procedure makes possible the arrangement of each student's schedule well in advance of the beginning of classes. Once the freshman arrives on campus he is assigned to a Faculty Adviser who is responsible for approving his final registration and who advises him until he selects and is accepted by a department as a major. It is important to recognize that freshmen are encouraged to make adjustments in their schedules prior to the beginning of classes should they feel that their schedule is unsatisfactory.

For students other than incoming Freshmen registration occurs in December for the spring term and in April for the fall term. All schedules must be approved by the Faculty Adviser prior to registration.

Responsibility rests with the student for the election of such courses as will satisfy the requirements of the College for graduation.

A variety of circumstances, singly or in combination, may prevent an undergraduate from realizing fullest benefit from the educational opportunity provided him. Injudicious selection of courses, of majors and minors; inappropriate personal aspirations; inadequate study techniques or invalid learning procedures; and problems of personal and social adjustments are unfavorable circumstances that have been identified in studies of less successful college students. The College believes that counsel by mature, interested faculty advisers can assist individual students to recognize and to overcome those undesirable circumstances that effect their academic success. In special instances, the adviser makes referrals to a qualified director of counseling who assists the student to overcome problems in his personal and social adjustment.

Course Loads

FRESHMAN AND SOPHOMORE YEARS: The normal academic load for freshmen and sophomores is five courses per semester. The courses taken during the freshman and sophomore years are to be so selected that at the end of his sophomore year a student will have completed all of his required courses and a reasonable number of the requirements for distribution. In addition the courses elected should be preparatory to the student's expected fields of concentration.

JUNIOR AND SENIOR YEARS: The normal academic load for juniors and seniors is four courses per semester. Students must register in their junior year for any required courses which they

have not completed satisfactorily. In addition, courses must be elected to meet the requirements for distribution and fields of concentration. The remainder of the student's schedule consists of free electives as necessary to complete his academic program.

ELECTIONS IN EXCESS OF NORMAL LOADS: The normal maximum of four and one-half courses for juniors and seniors, and of five courses for freshmen and sophomores, may not be exceeded without permission of the Committee on Academic Standards.

Schedule Changes

A student may change his course schedule prior to and during the first ten academic days of a semester if he has the approval of his adviser.

A course may be dropped from the eleventh to fifteenth class day with the approval of the adviser. A course may be added during this period with the approval of the adviser, the instructor, and Dean of the College.

A course may be dropped from the schedule from the sixteenth class day through the thirtieth class day in each semester with the approval of the adviser, the instructor, and the Dean of the College. A penalty grade of F will be assigned for a course dropped during this period without proper approval and for any course dropped after this period. A student must petition the faculty's Committee on Academic Standards, should his special circumstances warrant review of the penalty grade.

A special situation prevails for multilevel courses in languages, mathematics, and the sciences, where adjustments may be made in the level of an assignment up to the time of Roll Call. The conditions of these reassignments are set forth on page 42.

A student who changes his course elections for the fall semester must pay a fine of \$5 for each change to a maximum of \$15. This fine is waived if the change is necessitated by a change in the student's academic status or College-initiated changes in the course schedule.

Credit for Course Transfer

CREDIT FOR COURSE WORK: Credit for courses is based on the assumption that three hours (four hours in the junior and senior years) of study accompany each period of recitation or lecture.

CREDIT FOR WORK AT OTHER COLLEGES: The College may grant credit for work completed at other accredited colleges on previous arrangement with the Chairman of the appropriate department, the adviser, and the Associate Dean of the College. To receive credit the work must be at least "C" or its equivalent quality credit value. This work will count as credit toward graduation but the grade will not be used in computing the average for graduation. The College will accept transfer credit for summer study at other institutions for only one summer's work, the maximum acceptable being two courses (four courses if taken between the freshman and sophomore years).

CREDIT FOR WORK ABROAD: Credit will be granted for work abroad, up to a maximum of one year's work, provided it is approved in advance by the Associate Dean of the College and the student presents a satisfactory certificate of accomplishment.

Central Pennsylvania Consortium Courses

Courses taken at Central Pennsylvania Consortium colleges (Franklin & Marshall, Gettysburg, Wilson, and Dickinson) are treated as are Dickinson courses. Prior to registration in a Consortium College's course, a Dickinson student must have a 2.0 cumulative average and receive the approval of his adviser, the department in which the course is to be credited, and the Associate Dean of the College.

The Grading System

MARKING PERIODS: There will be a Roll Call for all students in each semester. At this Roll Call only grades of D, F, U, and I will be reported to the Registrar, except that all grades will be reported for Freshmen at the regular Fall Roll Call.

Grades will be reported to the Registrar at the end of each semester. Once a grade has been reported to the Registrar's Office it may not be changed unless the instructor discovers that he has made an arithmetical error in computing the grade or in transposing it from his record book to the grade card.

REGULATIONS GOVERNING GRADES

GRADES SHALL BE REPORTED AS:

A (Excellent)	Pa (Pass)
B (Above Average)	S (Satisfactory)
C (Average)	U (Unsatisfactory)
D (Below Average)	I (Incomplete)
F (Failing)	WP (Withdrew passing)
Fa (Fail)	WF (Withdrew failing)

COMPUTATION OF AVERAGES: In the computation of averages the following scale of Quality Credit Points will apply:

Grade	Point
A	4
B	3
C	2
D	1
F	0

A student's average shall be computed on the basis of all academic work which he has taken at Dickinson College during any specific period. For any given year it shall be computed by summing his quality points for that year and dividing by the number of courses taken. In computing a student's cumulative average

the sum of his quality points in his freshman and sophomore years shall be given a weight of three, and the sum of his quality points in his junior and senior years shall be given a weight of four. All averages shall be carried to two decimal points.

APPLICATION OF AVERAGES: A regular student is required to meet the following minimum standards of academic quality during his course:

Freshman: An average for the year of 1.75.

Sophomore: An average for the year of 2.00 or a cumulative average of 2.00 at the end of his sophomore year.

Junior: A cumulative average of 2.00 at the end of his junior year.

Senior (to be graduated): An average of 2.00 in all courses taken at Dickinson College.

A student who fails to meet the minimum standard for his class will be required to withdraw unless the Committee on Academic Standards takes action otherwise. Readmission will normally depend on his attending an accredited college elsewhere for one regular semester (not a summer session) and meeting the following minimum specifications: completion of a full-time academic program approved in advance by the Dean of the College and the attainment of an average of at least 2.25, with no grades lower than "C". Military service or satisfactory employment, normally for at least one year, may be substituted for such scholastic experience. In any event, prior consultation with the Dean of the College is recommended. If after reinstatement the student fails to meet the minimum standard set for him by the Committee on Academic Standards, he will be required to withdraw a second time and will be barred from readmission.

A nonmatriculated student must meet the same minimum standards as are required of a matriculated student. The number of courses a nonmatriculated student has taken will determine his class equivalence; he must meet the minimum standard for that class in each successive two-semester block of work,

regardless of the number of courses involved. A student who fails to meet the minimum standard will be required to withdraw unless the Committee on Academic Standards takes action otherwise. His formal readmission to the College and/or permission to take courses may be granted only after approval has been granted by the Committee on Academic Standards.

GRADES IN YEAR COURSES: To be admitted to the second semester of a year course (a hyphenated or an asterisk course) the student must have attained a passing grade in the work of the first semester.

SENIOR: UNSATISFACTORY GRADE IN COURSE: A senior who has maintained a passing average in a course but who because of failure in the final examination receives a grade of "F" in the course may apply for one re-examination in each course failed, provided the failure is not due to dishonesty. The re-examination shall replace the final examination failed, but in no case may a grade higher than "D" be earned in the course. If a re-examination is granted, it shall be conducted by a committee appointed by the Dean after consultation with the Chairman of the Department in which the failure occurred. This re-examination shall be conducted within ten (10) days after the date of the original examination except when an extension is granted by the Committee on Academic Standards.

Auditing

A student may audit a course without credit by obtaining the permission of the instructor and his adviser and then registering for it in the normal manner.

Pass/Fail Course Option

All students, except first semester freshmen, have the option of taking one course each semester on a pass/fail basis, in accord with the following stipulations:

1. That the total number of courses taken under the pass/fail option not exceed seven;
2. That "pass" be defined as work of a quality earning a grade of at least C; that "fail" be defined as work of a quality earning a grade of D or F;
3. That courses taken under the pass/fail option not be counted in the student's cumulative grade point average, but shall count toward the total number of courses taken for graduation; that, however, only two courses with a mark of F or "fail" may count toward graduation; and that the present policy stipulating a passing grade in all courses required for graduation, distribution, and major and minor fields of concentration be continued;
4. That a student exercise the pass/fail option at the time of registration with the permission of his adviser and not be allowed to convert to regular grading or to convert a course from regular grading after the fifteenth class day of the semester in accordance with current practice concerning the addition of courses;
5. That the instructor be apprised whether the student is taking his course under the pass/fail option; that the student satisfy the same requirements for the course expected of the regularly enrolled student;
6. That in a course, the instructor, and in the case of a multi-section course, the department, have the right to deny to students registration under the pass/fail option in that course, but that the denial must apply to all students in that course and be clearly indicated at the time of registration.
7. That a department may deny pass/fail registration to all declared majors or minors in any course required for the major or minor;
8. In courses with limits on class size, that exercise of the pass/fail option not be used as a factor in controlling class size.

Incomplete Grades

A grade of Incomplete may be reported only in cases in which illness or other serious emergency has prevented the student from completing the work for the marking period. An Incomplete may not be reported because of negligence or procrastination on the part of the student. A grade of Incomplete may be reported only if the student has done satisfactory work in the completed portions of the course. An Incomplete grade at the end of a semester shall be cleared before the Roll Call of the following semester unless exception is granted by the Committee on Academic Standards. In every case the Incomplete must be cleared before the end of the second semester following. If an Incomplete has not been cleared within stipulated time limits, the instructor shall record an F.

Dickinson College Summer Session

The Dickinson College Summer Session, not part of the regular College Year, is provided to give students opportunity to take additional college work, make up deficiencies, or accelerate progress towards a degree. Grades for work done in the Summer Session are assigned on the same basis as in the College Year, and they are included in the student's average of graduation. They are not, however, counted in the averages of the College Year. No student who has been required to withdraw from the College for academic reasons may be enrolled in a Summer Session without the approval of the Committee on Academic Standards.

Class Attendance

GENERAL POLICY: All students are expected to do satisfactory work in their academic studies. Any student who is neglectful of his studies or irregular in his attendance may be required to withdraw.

ATTENDANCE REGULATIONS: The College expects all students to attend their scheduled classes and laboratory periods regularly. It is recognized that what constitutes satisfactory attendance will vary between disciplines and among courses within the same subject field. Accordingly, at the beginning of each course individual instructors (or the department concerned) shall publish to the students involved what constitutes satisfactory attendance in that course. As a matter of special privilege, students on the Dean's list are relieved of normal attendance requirements other than in the case of an announced quiz or test. This privilege does not extend to absences from class in Military Science or Physical Education.

Academic Integrity

EFFECT OF DISHONESTY: A student is expected to observe strict integrity in examinations and other required work. Any infraction will be reported immediately to the Dean of the College for referral to the Academic Council.

Honors

HONORS UPON GRADUATION: A student who in his total program attains an average of at least 3.75 shall be awarded his degree *summa cum laude*.

A student who in his total program attains an average of at least 3.50 but less than 3.75 shall be awarded his degree *magna cum laude*.

A student who in his total program attains an average of at least 3.25 but less than 3.50 shall be awarded his degree *cum laude*.



Reference Section

Lectureships

The following lectureships are endowed or otherwise provided for:

THE JAMES HENRY MORGAN LECTURES. This lectureship "in the Classics and in College Teaching" is endowed by funds set aside in 1936 by the Board of Trustees in grateful appreciation of the distinguished services of the late James Henry Morgan of the Class of 1878: Professor of Greek, 1884-1914; Dean, 1903-14; President, 1914-28, 1931-32, 1933-34.

THE BOYD LEE SPAHR LECTURES IN AMERICANA. This lectureship was established in 1947 "in recognition of the importance of Dickinson College and its graduates in the large history of American Culture," and was named in honor of Boyd Lee

Spahr, A.M., LL.D., D.C.L., of the Class of 1900, in grateful appreciation of his continuous interest in the Dickinson College Library and of his numerous contributions to historical collections.

THE GLOVER MEMORIAL LECTURES. This lectureship "in Science" was established in 1958 in memory of John Glover of New Castle on Tyne, England, the inventor of the "Glover Tower," and in memory of his son and grandson, Henry and Lester Glover, by the late Dr. John D. Yeagley and by Mrs. Yeagley of York, Pennsylvania.

THE DICKINSON COLLEGE ARTS EDEL AWARD. Established by faculty members to recognize high achievement in the arts, the award is in the form of a Wedgwood ceramic medallion and the sum of one thousand dollars. Trustees of the College support the purpose of the Award by personally endowing the annual fund. Since its establishment in 1959 the Award has been presented to: Robert Lee Frost, 1958-59; Eero Saarinen, 1959-60; Dame Judith Anderson, 1960-61; Leonard Baskin, 1963-64; Walter Piston, 1965-66; W. H. Auden, 1967-68.

THE PRIESTLEY AWARD. Given each spring during the Joseph Priestley Celebration, the Award goes to a distinguished scientist for his contributions to the welfare of mankind. A Priestley Medallion, prepared of ceramic struck from the original molds made in 1775 by the first Josiah Wedgwood after a sketch of Priestley by John Flaxman, and a draft for one thousand dollars constitute the Award. Since its establishment in 1952 the Award has been presented to the following:

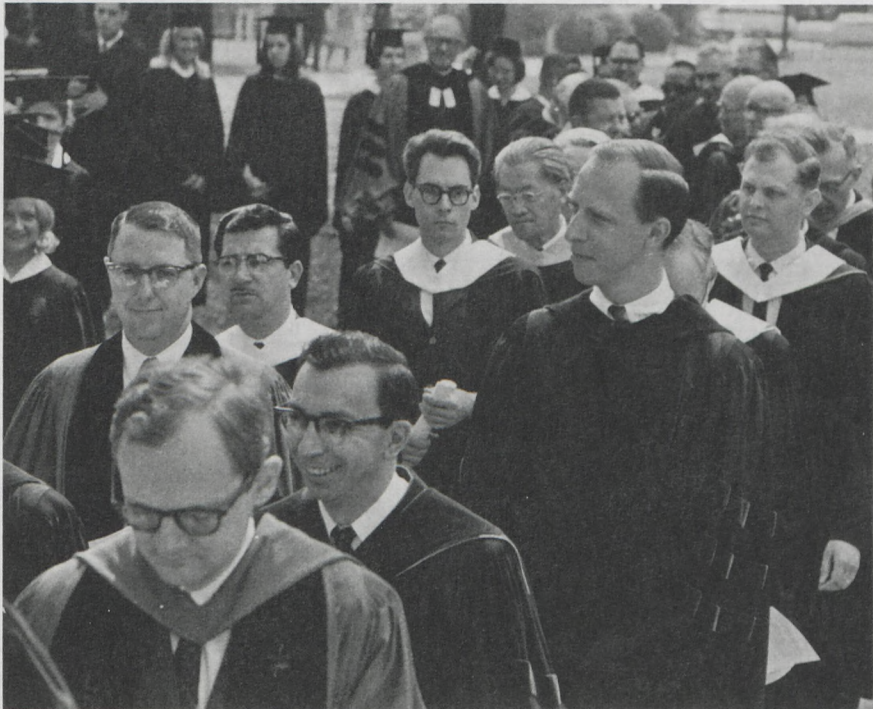
- 1952 Sir Hugh Stott Taylor, Dean of the Graduate School, Princeton University.
- 1953 Paul R. Burkholder, of the Class of 1924, Osborne Professor of Botany at Yale University, Discoverer of Chloromycetin.
- 1954 Karl T. Compton, Chairman of the Corporation, Massachusetts Institute of Technology.

- 1955 Harold C. Urey, University of Chicago. Nobel Prize Laureate in Chemistry 1934.
- 1956 Detlev W. Bronk, President, Rockefeller Institute for Medical Research.
- 1957 Edward Teller, General Advisory Committee, Atomic Energy Commission.
- 1958 George Bogdan Kistiakowski, Abbott and James Lawrence Professor of Chemistry, Harvard University.
- 1959 Willard Frank Libby, Member, Atomic Energy Commission. Nobel Prize Laureate in Chemistry 1960.
- 1960 Glenn T. Seaborg, Chancellor and Professor of Chemistry, University of California. Nobel Prize Laureate in Chemistry 1951.
- 1961 Maurice Ewing, Professor of Geology, Columbia University.
- 1962 Robert B. Woodward, Donner Professor of Science, Harvard University. Nobel Prize Laureate in Chemistry 1965.
- 1963 Kenneth S. Pitzer, President, Rice University.
- 1964 Isador I. Rabi, Higgins Professor of Physics, Columbia University. Nobel Prize Laureate in Physics 1944.
- 1965 Joel H. Hildebrand, Professor of Chemistry emeritus, University of California, Berkeley.
- 1966 Charles H. Townes, Provost, Massachusetts Institute of Technology. Nobel Prize Laureate in Physics 1964.
- 1967 George W. Beadle, President, University of Chicago. Nobel Prize Laureate in Medicine 1958.
- 1968 Marshall W. Nirenberg, Chief of the Laboratory of Biochemical Genetics, National Heart Institute.
- 1969 Linus C. Pauling, Research Associate, California Institute of Technology. Nobel Prize in Chemistry, 1954. Nobel Peace Prize, 1962.

THE LINDBACK AWARD. Instituted by the trustees of the Christian R. and Mary F. Lindback Foundation, the Lindback Distinguished Teaching Award is the highest honor the College bestows on members of its faculty. Selected by the President, the Lindback Award carries an honorarium of not less than five hundred dollars and not more than one thousand

dollars. The Lindback Foundation further awards one thousand dollars in scholarships to deserving students who can meet certain basic standards. The Lindback Distinguished Teaching Awards have been presented to the following faculty members:

- 1960-61 Amos B. Horlacher and Ralph Schecter
- 1961-62 Joseph H. Schiffman
- 1962-63 Horace E. Rogers
- 1963-64 Carl E. Kerr and K. Robert Nilsson
- 1964-65 Paul F. Angiolillo and William B. Jeffries
- 1965-66 John C. Pflaum and Arthur M. Prinz
- 1966-67 Harry F. Booth and William W. Vernon, Jr.
- 1967-68 David F. Brubaker
- 1968-69 George Allan



Endowed and Named Chairs

The College has a number of endowed and named chairs. The holders of these chairs are elected by the Board of Trustees and the chairs which they hold are indicated in the faculty list. The endowed chairs are as follows:

THE LEMUEL T. APPOLD FOUNDATION, endowing the chair of the President of the College, was established by the Board of Trustees from a part of the bequest of Lemuel T. Appold of Baltimore, Maryland, of the Class of 1882 and a generous benefactor of the College.

THE ROBERT COLEMAN CHAIR OF HISTORY. The bequest of Robert Coleman, Esq., of Lancaster, Pennsylvania, was designated by the Board of Trustees in 1828 for the endowment of a professorship, making this one of the oldest American professorships.

THE THOMAS BEAVER CHAIR OF ENGLISH LITERATURE was endowed by Thomas Beaver, Esq., of Danville, Pennsylvania, in 1889.

THE SUSAN POWERS HOFFMAN CHAIR OF MATHEMATICS was endowed in 1923 and named in memory of Susan Powers Hoffman, of Carlisle.

THE ASBURY J. CLARKE CHAIR OF LATIN was established in 1919 by the gift of the widow of Asbury J. Clarke, of the Class of 1863.

THE RICHARD V. C. WATKINS CHAIR OF PSYCHOLOGY was endowed in 1928 by the bequest of Richard V. C. Watkins, of the Class of 1912.

THE MARTHA PORTER SELLERS CHAIR OF RHETORIC AND THE ENGLISH LANGUAGE is an endowed professorship established in 1936 by a gift of her son, the late Professor Montgomery Porter Sellers, of the Class of 1893.

THE BOYD LEE SPAHR CHAIR OF AMERICAN HISTORY was endowed in 1949 by the gift of Boyd Lee Spahr, of the Class of 1900.

THE GEORGE HENRY KETTERER AND BERTHA CURRY KETTERER CHAIR OF RELIGION was endowed in 1949 by the gifts of George Henry Ketterer, of the Class of 1908, and his wife, Bertha Curry Ketterer.

THE HENRY LOGAN CHAIR OF ECONOMICS was established in 1967 by the gift of Henry Logan of the Class of 1910.

THE RUSSELL I. THOMPSON CHAIR OF THE DEAN OF THE COLLEGE was established in 1967 by the gift of Ethel Wright Thompson.

THE ROBERT BLAINE WEAVER CHAIR OF POLITICAL SCIENCE was endowed by the bequest of Laura Davidson Weaver, and named for her brother, Robert Blaine Weaver, of the Class of 1874.

THE C. SCOTT ALTHOUSE CHAIR OF CHEMISTRY was established in 1950 and named for C. Scott Althouse, a trustee of the College.

THE ALFRED VICTOR DUPONT CHAIR OF CHEMISTRY, named for Alfred Victor duPont, a student at the College, 1814-16, was established in 1950 by the gift of his grandson, the late Irénée duPont, of Wilmington, Delaware.

THE THOMAS BOWMAN CHAIR OF RELIGION was endowed in 1951 by the gift of the Kresge Foundation (Sebastian S. Kresge, L.H.D., Founder), and named for Thomas Bowman of the Class of 1837, the first graduate of Dickinson College to be elected a Bishop of the Methodist Episcopal Church.

THE JOSEPH PRIESTLEY CHAIR OF NATURAL PHILOSOPHY was established in 1959 by gifts of William H. Baker and S. Walter Stauffer in memory of Salome Baker Stauffer.

THE WILLIAM W. EDEL CHAIR IN THE HUMANITIES was endowed in 1959 by the gift of Merle W. Allen, a College trustee, and his wife, Elizabeth Frederick Allen, "in recognition and commemoration of Dr. Edel's outstanding leadership as President of the College from 1946-1959."

THE JAMES HOPE CALDWELL MEMORIAL CHAIR was endowed in 1966 by the bequest of Mr. and Mrs. James Hope Caldwell.

THE CHARLES A. DANA PROFESSORSHIP PROGRAM established in 1968 by a matching grant of \$250,000 from The Charles A. Dana Foundation. The income from this fund is to be used annually to subsidize the salaries of four Dana Professors in varying amounts but in excess of the average salary for full professors at the time of appointment.

THE GEORGE METZGER ENDOWMENT FUND, held in trust by the Trustees of the Fund, the income therefrom paid annually to Dickinson College at the discretion of the Trustees of the George Metzger Endowment Fund to endow the chair of the Dean of Women at Dickinson College.

The George Metzger Endowment Fund was established in 1963 by the Metzger College Trustees in memory of George Metzger of the Class of 1798 of Dickinson College who made a testamentary provision for the establishment of a college for the Education of young women after his decease. By action of the Board of Trustees of Metzger College in 1913, use of the Metzger College building, Metzger Hall, was granted to Dickinson College as a residence hall for women students. Fifty years later, Dickinson relinquished its use of Metzger Hall, the property was sold, and the proceeds used to establish the George Metzger Endowment Fund.

A number of other chairs are partially endowed.

Honor Scholarships and Prizes

FOR GENERAL EXCELLENCE IN SCHOLARSHIP

SOPHISTERS By action of the Board of Trustees, and in keeping with an old Dickinson tradition, the highest-ranking junior is named Senior Sophister for his final year in College, while the highest-ranking sophomore is named Junior Sophister for the following year. The distinction of Senior and Junior Sophisters carries with it a \$500 prize.

THE JAMES FOWLER RUSLING PRIZE of \$100, the income augmented from the \$1,000 gift of General James Fowler Rusling, LL.D., Class of 1854, is awarded to that student of the Senior Class who, at the end of a four-year course, shall be found to excel in scholarship and character.

THE WILLIAM K. DARE HONOR SCHOLARSHIP, in memory of William K. Dare, Class of '83, Professor of Education and Psychology, 1893-99, is awarded annually to that male student of the Freshman, Sophomore, or Junior Class who has attained the highest scholastic average in the work of the previous year. For this purpose the late Lemuel T. Ap-pold, Esq., Class of '82, the lifelong friend of Professor Dare, gave the College a capital fund of \$5,000. The scholarship, consisting of \$250, is awarded at Commencement time, and is credited to the recipient on tuition the following year.

THE HUFSTADER SENIOR PRIZES, two prizes of \$200 each, one for the senior man student and the other for the senior woman student who, in the judgment of the President of the College, have contributed most to the good of the College during the entire four years. These prizes are endowed by a gift from Dr. William F. Hufstader.

THE DELAPLAINE MCDANIEL PRIZES. \$5,000 was given by the late Delaplaine McDaniel, of Philadelphia, as a scholarship fund providing three prizes offered annually to two members of the Freshman Class and to one member of the Sophomore Class for excellence in scholarship.

THE CLASS OF 1875 PRIZE in memory of John H. Ahl, a member of the class, by his son, John C. Ahl. To pay annually the net income on \$1,000 to that senior at Dickinson College who received the best mark in Economics.

THE JOHN PATTON MEMORIAL PRIZES, four in number, of \$25 each, one for each of the college classes, established by the \$2,000 gift of the late Honorable A. E. Patton of Curwensville, as a memorial to his father, Gen. John Patton, for many years a trustee of the College, are awarded annually for high scholastic standing.

FOR EXCELLENCE IN SPECIAL FIELDS

THE RUTH SELLERS MAXWELL SCHOLARSHIPS in English Literature, established in 1945 by the \$5,000 gift of Robert H. Maxwell, of the Class of 1915, in memory of wife, Ruth Sellers Maxwell, of the Class of 1915, who for many years was a teacher of English Literature, to be awarded annually for excellence in scholarship, for the highest scholastic standing in any course in English literature.

THE WILLIAM LENNOX AVIS PRIZE IN UNITED STATES HISTORY of \$25, the income from a fund of \$450, the bequest of Minnie Woods Avis.

THE BAIRD BIOLOGY PRIZES, two in number, of \$50 each to honor Spencer Fullerton Baird, a graduate of Dickinson College and its most outstanding alumnus in the field of Biology; to be given to two seniors majoring in Biology who, in the opinion of the faculty of the Biology department, have demonstrated excellence in Biology and show promise for future achievement in the field of Biology (broadly defined).

THE HENRY P. CANNON MEMORIAL PRIZE, income of a fund of \$500 voted by the Trustees in 1932 in honor of Henry P. Cannon, Class of '70, to continue the award given by him for many years "to that member of the Sophomore Class who shall pass the most satisfactory examination in the Mathematics of the Sophomore year, together with the original Geometry of the Freshman year."

THE MERVIN GRANT FILLER MEMORIAL PRIZE of \$50, the income from a \$1,000 bequest of Tolbert J. Scholl, of Mechanicsburg, Pa., in memory of Dr. Mervin G. Filler, President of the College, 1928-31, to be awarded annually at Commencement to a student of the College for excellence in the study of the classical languages.

THE CHI OMEGA PRIZE of \$25, the gift of the Dickinson chapter, is an award made to that junior or senior woman who excels in Economics, Political Science, Sociology, or Psychology.

THE CLASS OF 1902 AWARD A gold watch made possible by a gift of \$2,500 from the Class of 1902, and awarded annually to that member of the Junior Class who, by the vote of his classmates, shall be adjudged the most all-around Dickinsonian. Established in June, 1927.

THE JOSEPH MIDDLETON AND ISABEL MULLIN BURNS MEMORIAL PRIZE of \$50, the annual income from \$1,000, the contribution of their daughter, Mrs. Helen Burns Norcross, Class of 1912 and former Dean of Women. This award is to be given annually to the woman student who attains the highest scholastic average during the Sophomore year.

THE CAROLINE HATTON CLARK MATHEMATICS SCHOLARSHIPS, the income from a fund of \$11,000; established in 1967.

THE C. W. FINK MEMORIAL ECONOMICS PRIZE of \$25, the income from a fund of \$580 established in 1961, is awarded annually to a student for excellence in Economics.

THE CHARLES MORTIMER GRIFFIN PRIZE IN ENGLISH BIBLE of \$25, the income of a fund of \$500, is awarded annually to a student of the Senior Class of English Bible.

THE FORREST E. CRAVER MEMORIAL MATHEMATICS PRIZE of \$50, the income from a fund of \$1,000 established in 1963, to be awarded annually to a student of the Junior Class for excellence in Mathematics.

THE LANDIS-MOHLER PRIZE IN PHYSICS of \$50, the income from a fund of \$1,400 given by George G. Landis, of the Class of 1920, in memory of Professor John Frederick Mohler, Professor of Physics from 1896-1930, to be awarded for excellence in Physics of the Freshman year.

THE WILLIAM W. LANDIS MEMORIAL PRIZE IN MATHEMATICS of \$50, the income from a fund of \$1,000 given by his cousin, George G. Landis, of the Class of 1920, in memory of Dr. William W. Landis, Professor of Mathematics from 1895 to 1942, to be awarded for excellence in the mathematics of the Freshman year.

THE MARGARET McALPIN RAMOS AWARD of \$25 is to be awarded annually to a student of the Junior or Senior Class for excellence in the study of Spanish; the recipient to be a major in that area of study.

THE ALICE AND F. CHAPLINE MOOREHEAD AWARD of \$50, the income of a fund of \$1,000, to be awarded to that member of the Sophomore Class who has shown the most improvement in overall scholastic achievement during his or her Sophomore year. This award has been presented by Caroline Moorehead Elder in loving memory of her parents.

THE WILBUR HARRINGTON AND HELEN BURNS NORCROSS PRIZE of \$50 created in the will of Helen Burns Norcross, former Dean of Women, the annual income from a fund of \$1,000, in memory of her husband, Professor Wilbur Harrington Norcross, head of the Psychology Department from 1916 to 1941, to be awarded for excellence in Psychology during the Junior year.

THE WELLINGTON A. PARLIN SCIENCE SCHOLARSHIP AWARD of \$100, the income from a fund given to the College by Dr. Wellington A. Parlin, Professor Emeritus of Physics, awarded annually to that junior majoring in Biology, Chemistry, or Physics, who has, during the three years at Dickinson College, attained the highest general scholastic average, and is applied to his college account for his Senior year. If in any year the student to whom the award is made does not return as a student for the following year, the amount granted him shall then be used by the College for general college purposes.

THE GAYLARD H. PATTERSON MEMORIAL PRIZE of \$25, the income of a fund of \$500, a memorial to Professor Gaylard H. Patterson, the founder of the Social Science Department in the College, to be awarded to that student in Sociology who presents the best sociological analysis of a public policy. The judges of the essay are to be members of the Division of Social Science.

THE MORRIS W. PRINCE HISTORY PRIZE of \$25, the income of a fund of \$455, the gift of the Class of 1899, for excellence in History.

THE WINFIELD DAVIDSON WALKLEY PRIZES of \$25 and \$15, the income of a fund amounting to \$993.16, endowed by D. R. Walkley, D.C.L., in memory of his son, Winfield Davidson Walkley, are awarded as first and second prizes, respectively, to those members of the Freshman Class who shall excel in declamation, either forensic or dramatic.

ANGELINE BLAKE WOMER MEMORIAL PRIZE of \$75, the income of a fund of \$1,500, to be awarded each year to that student of the Freshman Class who attains the highest grade in rhetoric and composition.

THE GOULD MEMORIAL DRAMA PRIZES, two permanent trophies, value \$1,200, donated by Dr. Herbert M. Gould, in memory of his father, William H. G. Gould, and mother, Myrtle Drum Gould, to be retained by the College, but engraved each year with the name of the man student and woman student who, in the judgment of the President of the College, have made the greatest contribution to the program of dramatic productions.

THE AGNES STERRETT WOODS PRIZE of \$50, to be paid yearly to a woman student for the best short story or best essay.

THE PENNSYLVANIA INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS AWARD, a beautifully bound Accountants' Handbook, to be awarded annually to the outstanding accounting student.



Scholarships and Student Aid

The College provides several types of assistance for worthy students in financial need. A number of special loans and scholarship funds have been established over the years by friends of the College, awards from which are made by the donors or by the President on the basis of merit and need. Supplementing these funds, the College annually sets aside from its budget a sum to be used for the several forms of student aid described below.

SCHOLARSHIP AWARDS are made to certain outstanding students with due consideration given to need. Dickinson utilizes the College Scholarship Service sponsored by the College Entrance Examination Board.

GRANTS-IN-AID are available to students who offer high promise of usefulness but who have not achieved scholastic distinction. Such awards are restricted to those who cannot meet the full expense of their college program through incidental employment without serious detriment to their academic work.

STUDENT LOANS are available under the terms of the National Defense Education Act of 1958 (Public Law 85-864) as well as from the college funds listed on page 173.

Financial assistance is normally awarded for the full academic year. The College reserves the right, however, to review individual cases at any time. Normally financial aid is not continued to students on probation. Students who have received financial aid may count upon its renewal, though not necessarily in the same amount or category, subject to the following conditions: attainment of a satisfactory scholastic record; maintenance of a high standard of conduct; continued existence of financial need, and exercise of strict economy.

All students, except as noted, desiring renewal of financial aid must make application on the "Application for Renewal of Financial Aid" form by February 15. Students whose economic circumstances have changed significantly (over \$500) since the initial award to them of financial assistance by the College must use the form provided by the College Scholarship Service in

applying for renewal. Complete information concerning these several types of financial assistance, including all necessary forms, can be obtained from the Director of Student Aid in the Office of Admissions.

PRESIDENTIAL SCHOLARSHIPS

By action of the Trustees of the College eight Presidential Full Tuition Scholarships were established in commemoration of the Tenth Anniversary of the Inauguration of President Emeritus William Wilcox Edel. Four of these scholarships are at large, two are assigned to Carlisle, one to Harrisburg and one to Baltimore. Normally two Presidential Scholarships will be awarded each year. Scholarships once awarded will be renewed each year provided the recipient maintains satisfactory character and scholarship.

FOUNDATION SCHOLARSHIPS

NATIONAL METHODIST SCHOLARSHIPS are available to a number of students. These scholarships are based on recommendation from the pastor of the student's home church, interest and experience in Methodist activities, and high scholarship. Applications for these scholarships should be made to the President's Office of the College.

THE PITCAIRN-CRABBE FOUNDATION of Pittsburgh, Pennsylvania, has made available a scholarship of \$1,000 to be awarded annually by the President of the College on the basis of need and promise, to students who are the sons or daughters of clergymen, teachers, public servants, or other persons who are engaged in serving the public welfare.

THE GENERAL MOTORS CORPORATION has made available a scholarship to be awarded in alternate years. The value of this scholarship depends on the need of the student selected, not to exceed \$2,000 per year. Scholarships will be awarded on a competitive basis and application for them should be made to the Dean of Admissions.

ENDOWED SCHOLARSHIPS

THE DICKINSON COLLEGE FRATERNITY SCHOLARSHIP FUNDS totaling \$249,064 established in 1964 by the Alumni Members of the respective local chapters of the ten national fraternities of the College. The annual income from each of these separate fraternity funds is awarded as scholarships to deserving students, with preference given to active members of the particular fraternity.

THE LEO ASBELL MEMORIAL SCHOLARSHIP FUND of \$9,675, established in 1967 by members of the Asbell family in memory of Leo Asbell '32, the income thereof to be awarded annually by the President of the College and/or Board of Trustees to a needy and worthy student, with preference being given to a resident of southern New Jersey.

THE BALDWIN MEMORIAL CHURCH SCHOLARSHIP FUND of \$1,822, established in 1917.

THE M. GRACE BECHTEL MEMORIAL, the interest on a \$1,822 endowment to be paid annually to that student of the College who is preparing for entrance into the Christian ministry of the Central Pennsylvania Conference of The Methodist Church.

THE BODINE SCHOLARSHIP of \$50, established in 1907 by the \$1,822 gift of George I. Bodine, Jr., Esq.

THE GEORGE L. BROWN FUND, established under the will of the late George L. Brown, M.D., of Lucknow, Pa., amounting to \$30,000, provides that the income be applied to the tuition in order of preference, first, of male students from Middle Paxton Township, Dauphin County, Pa.; secondly, of male students from Susquehanna Township, Dauphin County, Pa.; and lastly, of other worthy and eligible boys.

THE CARLISLE CORPORATION SCHOLARSHIPS, established in 1967 by the \$20,936 gift of Carlisle Corporation, manufacturers, of Carlisle, Pennsylvania, awarded annually with preference given to children of employees of Carlisle Corporation, then to residents of Carlisle or adjacent territory, and lastly to any other needy and worthy students.

CENTRAL PENNSYLVANIA METHODIST CONFERENCE SCHOLARSHIP FUND, the income to be used as scholarships for members of churches of the Central Pennsylvania Methodist Conference.

THE CLASS OF 1910 MEMORIAL FUND, established by the Class of 1910 on June 30, 1960, the sum of \$14,264. The income from this fund is to be used for such college purposes as the President of the College shall consider to be of the greatest need, with preference first to the Library and then to scholarship grants.

THE CLASS OF 1914 SCHOLARSHIP, the interest on an accumulating fund which was presented to the College on the twenty-fifth reunion of the class, and on June 30, 1950, amounted to \$7,487, available in the form of scholarship aid to students, by appointment of the President of the College.

THE CLASS OF 1914 PRIZE, in memory of John C. Ahl, a member of the class. To pay annually each commencement the net income on \$1,000 to that graduate of Dickinson College who attains the highest marks in American History at the College.

THE CLASS OF 1915 SCHOLARSHIP, the interest on a fund presented to the College on the thirtieth reunion of the class on June 3, 1945, amounting to \$9,902 available in the form of scholarship aid to students by appointment of the President of the College, preference to be given to any descendant of a member of the Class of 1915.

THE CLASS OF 1917 SCHOLARSHIP, the interest on a fund presented to the College on the thirtieth reunion of the class on June 7, 1947, amounting to \$5,468, to be awarded annually by the President of the College, preference to be given to any descendant of the Class of 1917.

THE CLASS OF 1918 SCHOLARSHIP, the interest on a fund presented to the College on the thirtieth reunion of the class on June 5, 1948, amounting to \$5,706 to be awarded annually by the President of the College, preference to be given to any descendant of the Class of 1918, and when unassigned, to be used for the operating costs of the College.

THE CLASS OF 1921 SCHOLARSHIP, the interest on a fund presented to the College on the twenty-fifth reunion of the class on June 8, 1946, amounting to \$4,238, to be awarded by the President of the College, preference to be given to any descendant of the Class of 1921.

THE CLASS OF 1922 MEMORIAL FUND, the interest on a fund presented to the College on the twenty-fifth reunion of the class on June 7, 1947, amounting to \$2,202, the income to be used for such college purposes as the President of the College shall consider to be the greatest need with preference first to the Library and then to scholarship grants.

THE CLASS OF 1928 SCHOLARSHIP, the interest on a fund presented to the College on the twenty-fifth reunion of the class in June, 1953, amounting to \$18,341, to be awarded annually by the President of the College, preference to be given to any needy descendant of the Class of 1928, and when unassigned to be used for such college purposes as the President of the College shall consider to be the greatest need.

THE CLASS OF 1930 SCHOLARSHIP, the interest on a fund presented to the College on the twenty-fifth reunion of the class in June 1955, amounting to \$7,804, to be awarded annually by the President of the College, preference to be given to any needy descendant of the Class of 1930.

THE CLASS OF 1935 RED MALCOLM SCHOLARSHIP FUND, amounting to \$48,271. The interest to be awarded annually by the President of the College, preference to be given to any needy descendant of the Class of 1935.

THE CLASS OF 1938 SCHOLARSHIP, amounting to \$6,502, and to be administered by the President of the College.

THE CLASS OF 1960 DR. GILBERT MALCOLM SCHOLARSHIP FUND of \$5,053.

THE CAROLINE HATTON CLARK MATHEMATICS SCHOLARSHIP FUND of \$11,170, the gift of Caroline Hatton Clark. The income of the fund available in the form of scholarship aid to a worthy and needy student.

THE JOSEPH AND MARY STRONG CLEMENS SCHOLARSHIP FUND of \$4,557 was established in 1934 by Joseph Clemens, Class of 1894, the income therefrom to be used as scholarship or scholarship-loan aid for the benefit of students of the College who are students for the ministry of The Methodist Church to be selected by the President of the College as needy and worthy.

CARRIE A. W. COBB SCHOLARSHIP FUND of \$9,113, in memory of the Reverend Charles H. Rorer, D.D., because of his abiding interest in the College, his Alma Mater, the income of which is to be awarded by the College to aid students preparing for the ministry.

THE ELEANOR COOPER SCHOLARSHIP FUND of \$9,113, established in 1952. The Dickinson Club of New York may from time to time nominate recipients of such scholarship.

THE CORSON SCHOLARSHIP FUND of \$32,157, in honor of Bishop Fred P. Corson and Frances B. Corson, established by the Wyoming Conference of The Methodist Church. The amount of each scholarship to be limited to \$500 annually from this fund. Every candidate shall be a member of one of the churches of the Wyoming Conference.

THE MR. AND MRS. ROBERT B. DAVIES SCHOLARSHIP FUND of \$26,518, established in January 1962, the income to be used toward the payment of the tuition of any students from Schuylkill County, Pennsylvania, of the Methodist faith, who are attending Dickinson College.

THE NATHAN DODSON CORTRIGHT MEMORIAL SCHOLARSHIP FUND of \$9,113 established by Mrs. Emma L. Keen, of Philadelphia, as a memorial to her father, Nathan Dodson Cortright, is used to aid young men preparing for the ministry.

S. ADELBERT DeLUDE SCHOLARSHIP of \$250, established in 1956 by a \$10,207 grant from his estate. In awarding this scholarship preference is given to a student from the New York area.

THE LUCY HOLT DONEY MEMORIAL SCHOLARSHIP FUND of \$1,822, established in 1959 by Jean, Hugh, and John Doney, the income to be used for a worthy and needy student.

THE SMITH ELY SCHOLARSHIP, endowed in 1910 by the Honorable Smith Ely, of New York City, in the sum of \$2,005, students from New York City and vicinity having prior claim.

THE WILLIAM SCHUYLER EVES MEMORIAL SCHOLARSHIP FUND of \$29,073 established in 1956, the annual income to be used for the education of needy and worthy young men. The young men to be selected by the President of Dickinson College with priority given any young man preparing for the ministry.

THE FARMERS TRUST COMPANY SCHOLARSHIP FUND of \$24,359, established in 1961 by the gift of the Farmers Trust Company, Carlisle, Pennsylvania. The income of the Fund available in the form of Scholarship Aid, by appointment of the President of the College, preference to be given to the son or daughter of an employee of the bank.

THE ROBERT M. FERGUSON, JR. MEMORIAL SCHOLARSHIP FUND of \$3,645, the gift of Grace C. Vale, of the Class of 1900.

THE FREEMAN SCHOLARSHIP of \$50, established by the \$1,822 gift of Frank A. Freeman, Esq., of Philadelphia.

THE MELVILLE GAMBRILL MEMORIAL FUND of \$91,537, the gift of Melville Gambrill, of Wilmington, Delaware, a former trustee of the College, the income from which is used to provide education for young men preparing for the ministry.

THE JOHN GILLESPIE MEMORIAL SCHOLARSHIP, interest on \$1,822, the gift in 1911 of Miss Kate S. Gillespie, daughter of John Gillespie, Esq., of Philadelphia, as a memorial to her father.

THE M. BRANDT GOODYEAR SCHOLARSHIP, established in 1961, the income from \$3,645.

THE EDNA GRACE GOODYEAR MEMORIAL FUND of \$9,113, established by the late Samuel M. Goodyear, for many years a trustee of the College, the income therefrom to be awarded annually by the President of the College to a needy and worthy student, first, of students from Carlisle, Pennsylvania; secondly, of students from Cumberland County; and lastly, of other worthy and eligible students.

THE JOHN H. HACKENBERG SCHOLARSHIP was endowed in 1940 by the gift of \$3,645 by the Reverend John H. Hackenberg, D.D. and his wife, the interest to go annually to help some worthy young man preparing for the Methodist ministry.

THE HAVERSTICK AND SNAVELY SCHOLARSHIP, income from an annuity fund of \$1,822 set up in 1910 and designated for endowment of a scholarship.

THE J. FRED HEISSE SCHOLARSHIP FUND of \$4,557 was established in 1925 by his brother, E. W. Heisse, of Baltimore. The proceeds of the fund are awarded from year to year to such student or students as may be named by the donor, or on his failure to nominate, by the President of the College.

THE HONORABLE E. FOSTER HELLER SCHOLARSHIP FUND of \$9,113, established by Anna C. Halsey, the income to be given each year, at the discretion of the President of

the College, to such boy or boys of scholastic attainment and of good character who need help for the successful continuance of their course in College.

THE HORN SCHOLARSHIP, income from \$1,822, contributed in 1917 by J. Edward Horn, of Phillipsburg, Pa., to be awarded to some worthy student of the College preparing for useful service.

THE BRUCE HUGHES SCHOLARSHIP, established in 1917, the income from \$1,732.

THE WILLIAM ALBERT HUTCHISON SCHOLARSHIPS, the income from a fund of \$5,812, presented to the College by the Conway Hall Alumni Association on June 7, 1947, in memory of Dr. William A. Hutchison, Headmaster of Conway Hall Preparatory School, to be awarded by the President of the College, preference to be given to descendants of former students of Conway Hall.

THE CHARLES H. B. KENNEDY MEMORIAL SCHOLARSHIP FUND, the income from \$3,174, given by members of the "D" Club in memory of Professor Charles H. B. Kennedy.

THE LEONA B. KLINE AND SIDNEY D. KLINE SCHOLARSHIP TRUST FUND OF \$52,500, established in 1968 by Leona Barkalow Kline of the Class of 1927, and Sidney D. Kline of the Class of 1924, provides assistance grants or scholarships in the minimum amount of \$500 for students of Dickinson. The income is to be awarded annually as scholarships or assistance grants by the President of the College with preference to the entering students who have formally declared their intent to pursue a profession of ordained ministry in a Protestant religious denomination. The grants or scholarships shall be for students who qualify in any year of their attendance at Dickinson. The grants may be renewed for the sophomore, junior, and senior years providing the recipient continues to pursue a career in the ordained ministry.

THE DAVID R. SIEBER-IRVING E. KLINE-MABEL SIEBER KLINE SCHOLARSHIP FUND OF \$179,081, the income thereof to be applied to assisting deserving students at Dickinson College who, without such assistance, might not be able to obtain the advantages of a College education.

THE MERKEL LANDIS SCHOLARSHIP FUND OF \$41,706 established in 1958. The income to be awarded annually by the President of the College to a needy and worthy student, first, of students from Carlisle, Pennsylvania; secondly, of students from Cumberland County; and lastly, of other worthy and eligible students.

THE ALBANUS CHARLES LOGAN MEMORIAL SCHOLARSHIP FUND OF \$7,416, the gift of Maria Dickinson Logan, of Philadelphia, the income to be used as a scholarship at the College for some worthy young man, preference being given to a graduate of the Germantown High School.

THE HENRY LOGAN SCHOLARSHIP FUND OF \$53,245, the gift of Henry Logan, of the Class of 1910, of Brooklyn, N. Y., the income therefrom to be awarded annually by the President of the College to a needy and worthy student upon the recommendation of the donor during his lifetime.

THE JOHN B. LUCAS SCHOLARSHIP FUND of \$12,621, the income thereof to be used for scholarships to assist a Wilmington boy or girl who needs the income to assure a first year college education, first preference to be given to the child of an employee of the Pennsylvania Railroad Co. or an employee of the Atlas Powder Co.

THE RICHARD H. McANDREWS SCHOLARSHIP, the income from a fund of \$2,772, presented to the College on June 7, 1947, by the Wearers of the "D" to create a memorial to Associate Professor Emeritus R. H. McAndrews of the Department of Physical Education, to be awarded annually by the President of the College.

THE CHARLES WATSON McKEEHAN SCHOLARSHIP FUND of \$15,355, established under the wills of Mary A. McKeehan and Charles L. McKeehan in memory of their husband and father, Charles Watson McKeehan, of the Class of 1867, a trustee of the College 1879-95.

C. H. MASLAND & SONS SCHOLARSHIPS, established in 1945 by the \$52,266 gift of C. H. Masland & Sons, manufacturers, of Carlisle, Pa., awarded annually with preference given to children of employees of C. H. Masland & Sons, then to residents of Carlisle or adjacent territory, and lastly to any other needy and worthy student.

THE BESSIE McCULLOUGH MEMORIAL SCHOLARSHIP FUND, CLASS OF 1911, of \$21,967, established in 1959, the income to be used for worthy and needy students.

THE MAY MEMORIAL ASSOCIATION SCHOLARSHIP FUND of \$4,557 established in memory of Joseph M. and Aimee L. May, the income of which is to be used, when possible, for assisting students from the Greater New York area in consultation with the New York Alumni Association.

THE BISHOP WILLIAM VERNON MIDDLETON SCHOLARSHIP FUND of \$2,172 established by the Claude Worthington Benedum Foundation; the income from the scholarship fund to be awarded to a deserving student, with preference to students from the West Virginia and Western Pennsylvania area.

THE ARTHUR MILBY SCHOLARSHIP of \$50, established in 1911 by the \$1,822 gift of Miss Mary R. Burton, for the education of worthy young men for the ministry.

THE THEODORE F. MILLER SCHOLARSHIP of \$50, the income from the \$1,822 gift of Theodore F. Miller, Esq., of Philadelphia in 1928.

THE ROY W. MOHLER SCHOLARSHIP FUND of \$11,039 established on his fortieth reunion at Dickinson College by some of his former students at Jefferson Medical School and others. The income to be given in the second semester of his Senior year at Dickinson College to that student who has been accepted for admission to medical school for the following September and who has the greatest financial need, as determined by the President, Treasurer, and Premedical Adviser of Dickinson College.

THOMAS MONTGOMERY SCHOLARSHIP FUND of \$10,990, the gift of Colonel Robert H. Montgomery, LL.D., in memory of his father, Thomas Montgomery, a member of the Class of 1851.

THE MARLIN E. OLMSTED SCHOLARSHIPS, established in 1925 by Mrs. Marlin E. Olmsted (Mrs. Vance C. McCormick) in memory of her husband, Marlin E. Olmsted, an honorary alumnus of the College. The scholarships, the proceeds of a capital fund of \$9,113, shall be given each year at the discretion of the President of the College, to such students of good mind, good character, and studious habits as seem to need them for the successful continuance of their course in College.

THE CHARLES E. PETTINOS SCHOLARSHIP FUND of \$67,757 established by the Charles E. and Joy C. Pettinos Foundation; the income to be awarded annually as a scholarship in the name of Mr. Pettinos, former College Trustee.

THE PHILADELPHIA METHODIST CONFERENCE SCHOLARSHIP of \$500 per year is awarded annually to a student beginning his or her sophomore year and is renewable for the following two years provided that the recipient continues to meet the requirements for the award. Qualifications for this scholarship include membership in a church within the Philadelphia Conference of the Methodist Church, financial need, active participation in the religious life of the Dickinson campus and demonstrated evidence of a desire to assist oneself.

THE READER'S DIGEST FOUNDATION SCHOLARSHIP FUND of \$7,747, established in 1967 by the Reader's Digest Foundation, the income to be awarded annually by the President of the College to a needy and deserving student.

THE ERNEST C. AND MIMA J. REISINGER SCHOLARSHIP FUND established in 1968 by an initial gift of \$8,690 from Reisinger Brothers, Inc., contractors of Carlisle, Pa., the income from which is to be awarded annually to a worthy student with preference given to children of employees of Reisinger Brothers, Inc.

THE MARY SACHS SCHOLARSHIP FUND of \$4,080, established in 1963 by the Trustees of the Estate of Miss Mary Sachs in recognition of her lifetime of service and devotion to worthy causes. Income from the fund is to be awarded annually to assist a needy and gifted student at Dickinson College.

THE WILMER WESLEY SALMON SCHOLARSHIP FUND of \$540,179, established in 1961 under the will of Cora Belle Salmon in memory of her husband, Wilmer Wesley Salmon, of the Class of 1886 and a trustee of the College 1913-31, the income therefrom to be awarded annually by the President of the College to needy and worthy male students to enable them to complete their education at Dickinson College.

THE VALERIE SCHALL SCHOLARSHIP of \$75, proceeds of a \$2,734 fund, is used in assisting such young men as, in the estimation of the President and Faculty of the College, are of good character, scholarly habits, and deserving of assistance, and who are approved candidates for the Methodist ministry.

THE CHARLES T. SCHOEN SCHOLARSHIPS, ten in number, of \$50 each, established by the \$18,226 gift of the late Charles T. Schoen, of Philadelphia, are awarded annually to such young men and women as the President may designate.

THE ARNOLD BISHOP AND MARY AGNES SHAW SCHOLARSHIP, the annual income from \$1,250, the contribution of their children, Miss Clara W. Shaw, Mrs. Bertha Shaw Nevling, Mrs. Jeanne Shaw Bailey, Calvin Bishop Shaw, Charles M. Shaw. The donors may designate annually some worthy young person in the College in need of financial help.

JAMES ROSS SNOWDEN SCHOLARSHIP FUND, created in the will of Mary T. Snowden Stansfield, of Philadelphia, Pa., by the bequest of \$18,226 for the endowment of a law scholarship in memory of her father, the son of the Reverend Nathaniel Randolph Snowden, a trustee of the College from 1794 to 1827.

THE WILLIAM M. STAUFFER SCHOLARSHIP FOUNDATION, the bequest of \$1,732 of W. M. Stauffer, of Reading, Pa., in 1917, "to be invested as a special scholarship endowment, the income to be used for the benefit of some deserving student."

THE CAPTAIN JOHN ZUG STEESE SCHOLARSHIP, the interest on a \$1,822 endowment, the gift of his mother, Mrs. Anna Zug Schaeffer Steese, of Mt. Holly Springs, Pa., who has sent four sons to Dickinson, all of whom later served their country with distinction as commissioned officers of the army during World War I; to be awarded annually by the President of the College to some young man who has completed his Sophomore year in the upper third of his class, excelling especially in mathematics; who has engaged successfully in athletics, music, dramatics, or other extra-curricular activities, and to whom financial aid would be real assistance in helping him to continue his college course.

THE MARTIN VAN BLARCOM SCHOLARSHIP FUND of \$8,522, the gift of Martin Van Blarcom, 1911, of Croton-on-Hudson, N. Y., the income thereof to be awarded annually by the President of the College to a needy and worthy student, preference to be given to a resident of Westchester County of N. Y. and when unassigned to be used for operating costs of the College.

THE MOSES VAN CAMPEN CHAPTER D. A. R. SCHOLARSHIP FUND of \$18,226, the gift of Miss Elizabeth A. Low, of the Class of 1891, of Bloomsburg; the income to be awarded annually by the President of the College to a needy and worthy student, preference to be given to students from Columbia County.

THE JULIA VAN DUSEN SCHOLARSHIP FUND of \$9,113, established in 1962 by Henry Logan of the Class of 1910, the income therefrom to be awarded annually by the President of the College to a needy and worthy student, with preference given to residents of New York City area. During his lifetime the donor reserves the right to name the recipient. Thereafter, the award may be made on recommendation of Dickinson Alumni Clubs in New York City or vicinity.

THE ALBERT AND NAOMI WATSON SCHOLARSHIP FUND of \$18,264, the gift of Mr. and Mrs. Albert Watson, of Carlisle, Pa., the income therefrom to be awarded annually by the President of the College to a needy and worthy student, preference to be given to a resident of Carlisle.

THE M. WILLIAM WEDELL SCHOLARSHIP FUND of \$27,339, established in 1948 through a gift of Meta Hofer, of Brooklyn, N. Y., in memory of her brother, M. William Wedell. The income therefrom is assigned annually in the form of a scholarship or several scholarships by the President of the College and when unassigned is used for the operating needs of the College.

M. HELEN LEHMAN WHITMOYER MEMORIAL FUND of \$1,822, the gift of Raymond B. Whitmoyer of the Class of 1913 in memory of his deceased wife, M. Helen Lehman Whitmoyer, of the Class of 1911.

THE ELLA STICKNEY WILLEY SCHOLARSHIP of \$50, established by the \$1,822 gift of Mrs. Ella Stickney Willey, of Pittsburgh, Pa., is awarded annually to such students as may be designated by the donor or by the President.

THE ANNIE WINDOLPH SCHOLARSHIP FUND of \$18,941, established by the bequest of Annie Windolph, the income of which is available to a student or students taking pre-dental work.

THE ROBERT J. AND JOANNE HARDICK WISE SCHOLARSHIP FUND of \$73,193, established in 1965 by Robert J. Wise of the Class of 1953 and Joanne Hardick Wise of the Class of 1955, the income therefrom to be used at the discretion of the College for the College's scholarship program.

THE REVEREND WILLIAM WOOD SCHOLARSHIP of \$100, the income from the \$3,645 gift of Miss Sarah Wood, of Trenton, N. J., is awarded annually to such student as may be designated by the donor or by the President.

JOHN L. YARD SCHOLARSHIP FUND received in 1945 by a bequest totaling \$7,339 to establish three memorial scholarships in memory of testator's wife, Emmeline Matilda Van Rensselaer Yard, to be given each year at the discretion of the President of the College to students of good mind, good character, and studious habits, preference to be given to students desiring to enter the ministry who seem to need financial aid for the successful continuance of their courses in college.

THE CHARLES K. ZUG MEMORIAL FUND, a fund of \$9,780 given in January 1930, by the late Lemuel Towers Appold, Esq., Class of 1882, of Baltimore, in memory of his intimate friend, Charles K. Zug, of Philadelphia, Class of 1880, Phi Beta Kappa, a member of the Alumni Council, and for many years a faithful friend and trustee of the College. The income from this fund to be used at the discretion of the President in granting scholarship aid to worthy young men students.

UNDER THE WILL OF MARY ANN SPITAL the College will receive \$21,878, to provide a scholarship for male students. The fund from which the scholarships will derive is to be known as "The Mary Ann Ocker Spital Scholarship Fund."

UNENDOWED SCHOLARSHIPS

THE MARY DICKINSON CLUB SCHOLARSHIPS of \$500 each a year established in 1960 to be awarded by the President of the College upon nomination of the President of the Mary Dickinson Club to a needy and worthy Freshman girl and boy of high academic standing, which may be renewed for the Sophomore, Junior, and Senior years providing that they need the award to continue in College, maintain satisfactory scholastic standing, and are co-operative in following the rules and aims of the College.

THE AMANDA H. BAKER SCHOLARSHIP, the gift of John S. Snyder and his Company, in memory of the mother of Marion Ellen Baker, of the Class of 1931, the amount of \$250 awarded annually to a student from the White Plains High School, White Plains, New York, or Scarsdale High School, Scarsdale, New York, who is able to demonstrate the need for financial assistance.

THE PAN-HELLENIC COUNCIL SCHOLARSHIP, established by the women's sororities of Dickinson College, is awarded by the President of the College upon nomination of the Pan-Hellenic Council to a needy and deserving woman foreign student, or to an upper-classwoman, preferably a sorority woman.

THE AERO OIL COMPANY SCHOLARSHIP FUND of \$600 annually, is to be awarded to a deserving student from the area in which this company operates, and is administered by the College in accordance with its regulations and procedures for the award of other scholarships.

U. S. ARMY R.O.T.C. SCHOLARSHIPS: Three scholarships are awarded annually to outstanding sophomore Military Science students who desire a career as an Officer in the United States Army.

The scholarship provides all college expenses, (except room and board), a uniform allowance and a subsistence allowance of \$50.00 per month.

Recipients are selected on the basis of leadership potential, scholarship, and motivation toward a career in the Army as a commissioned officer. The active duty commitment for scholarship recipients is four years' service.

THE PENNSYLVANIA POWER AND LIGHT COMPANY has established four scholarships of \$300 each. The recipients of these scholarships must be residents of the area served by the company. The scholarships are assigned by the College in accordance with its procedures for the award of other scholarships.

THE WILLIAM VAN AXEN MILLER MEMORIAL SCHOLARSHIP established in 1969 by Mr. and Mrs. E. A. Miller and family in memory of their son, William Van Axen Miller, of the Class of 1971, the sum of \$100 to be awarded annually by the President.

THE NEW JERSEY CONFERENCE OF THE METHODIST CHURCH SCHOLARSHIP of \$500, granted annually, by the Commission on Higher Education of the New Jersey Conference, to a student who has been a member of a Methodist Church within the bounds of the Conference.

LOAN FUNDS

THE CORNELIA C. THUMM FUND, \$1,687, the legacy of Mrs. Cornelia C. Thumm, of Philadelphia, 1896, the annual interest on which is to be used for the benefit of some needy student or students of the College, the conditions of appointment and the selection of beneficiaries to rest with the President.

THE EMILY MAY PHELPS ATWOOD LOAN FUND, of \$11,030, established in 1942 by her parents, Mr. and Mrs. Andrew H. Phelps, to aid worthy students.

THE CLARA RIEGEL STINE FUND of \$16,377, the legacy of Clara Riegel Stine, of Mechanicsburg, Pa., to be used under a loan plan to assist in education of needy and worthy students studying for the ministry of The Methodist Church.

MARIA ELIZABETH VALE STUDENT'S SELF-HELP FUND, the income from a fund of \$45,565, the gift of Ruby R. Vale, Esq., of the Class of 1896, in memory of his daughter, now deceased, and because of his affection for his Alma Mater, and his desire to aid worthy students at the College needing temporary help. Administered by the President with permission to lend \$250 per year to an individual, but not to exceed \$1,000 to anyone during the college course.

THE MARY A. WILCOX, CLASS OF 1896, ENDOWED FUND of \$3,645, established in 1962 by her sister, A. Dorothea Wilcox, in memory of Mary A. Wilcox, Phi Beta Kappa of Class of 1896, who directs that said sum shall form part of the student loan fund and desires that it be perpetuated as a memorial in such manner as the appropriate governing body shall direct.

AMERICAN BANKERS ASSOCIATION FOUNDATION FOR EDUCATION IN ECONOMICS LOAN SCHOLARSHIP. One loan scholarship of \$250 per year. Consult the Treasurer of the College.

BOARD OF EDUCATION OF THE METHODIST CHURCH STUDENT LOAN FUND. Open to members of that Church of at least one year's standing, \$250 in the Freshman year, \$300 in the Sophomore year, \$350 in the Junior year, and \$400 in the Senior year. The total borrowings must not exceed \$2,000. Consult the Treasurer of the College.

CENTRAL PENNSYLVANIA CONFERENCE LOAN FUND. Consult the Treasurer of the College. The maximum per year for a student is \$200, and the total amount loaned to any one person is limited to \$800 during the college course. Five cash scholarships per year of \$100 each are also available from this fund.

THE CLASS OF 1909 SCHOLARSHIP FUND, the interest on an accumulating fund which was presented to the College on the thirty-fifth reunion of the Class, and, on June 30, 1946, amounted to \$4,181, available in the form of scholarship-loan aid to students by appointment of the President of the College, preference to be given to any descendant of a member of the Class of 1909.

THE EMERGENCY LOAN FUND. A fund for temporary small loans in cases of emergency. The principal of the fund, contributed by the alumni, is used as directed by the President of the College.

Students of the College may be eligible for other loan funds which are not administered by the College. Information concerning such funds may be obtained from the College Treasurer.

Directory

Dickinson College Board of Trustees

1969-1970

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Ex Officio

LIFE MEMBERS

First Elected

1950	C. SCOTT ALTHOUSE, Sc.D.	Reading
1959	ROSCOE O. BONISTEEL, LL.B., D.Sc., LL.D.	Ann Arbor, Mich.
1953	JOEL CLASTER, D.C.S.	Philadelphia
1945	WILLIAM L. ESHELMAN, Ph.B.	Mohnton
1953	HENRY LOGAN, A.M., LL.B.	Brooklyn, N. Y.
1908	BOYD LEE SPAHR, A.M., LL.D., D.C.L.	Haverford
1930	S. WALTER STAUFFER, Ph.B.	York
1950	GLENN E. TODD, Ph.B.	Carlisle

TERM EXPIRES 1970

1960	WILLIAM H. BAKER	York
1961	SHERWOOD M. BONNEY, A.B., LL.B.	Scarsdale, N. Y.
1959	C. WENDELL HOLMES, A.B., A.M.	Cape May Court House, N. J.
1958	WILLIAM S. JENKINS, Ph.B., LL.B.	Frostburg, Md.
1962	*ROGER R. KUEBLER, JR., A.B., A.M., Ph.D.	Chapel Hill, N. C.
1966	C. LAW McCABE, B.S., M.S., D.Sc., Sc.D.	Grosse Pointe Farms, Mich.
1954	W. GIBBS MCKENNEY, Ph.B., LL.B., LL.D.	Baltimore, Md.
1965	JAMES R. SHEPLEY, Litt.D.	Port Washington, N.Y.
1962	BOYD L. SPAHR, JR., A.B., LL.B.	Blue Bell
1948	SAMUEL W. WITWER, Ph.B., LL.B., LL.D.	Kenilworth, Ill.

TERM EXPIRES 1971

1961	ROLLAND L. ADAMS, LL.D.	Bethlehem
1943	JAMES T. BUCKLEY, D.Eng.	Philadelphia
1967	ROBERT W. CHILTON, A.B.	Carlisle
1965	CARL P. CLARE, B.Sc., D.Sc.	Arlington Heights, Ill.
1959	JOHN M. DAVISON, A.B., Ed.M.	Wayne
1967	JOHN WESLEY LORD, A.B., B.D., D.D., LL.D., S.T.D., H.H.D.	Washington, D.C.
1963	*WESTON C. OVERHOLT, JR., A.B., LL.B.	Springfield
1958	EDWARD C. RAFFENSPERGER, Sc.B., M.D.	Philadelphia
1965	MARY AMES RAFFENSPERGER, B.A., M.D., Sc.D.	Philadelphia
1952	ROBERT E. WOODSIDE, A.B., LL.B., LL.D.	Millersburg

**Alumni Trustee*

TERM EXPIRES 1972

*First
Elected*

1954	MARY SHARP FOUCHT	Chicago, Ill.
1954	F. LAMONT HENNINGER, A.M., B.D., Th.D., S.T.D.	Harrisburg
1965	JOHN M. HOERNER, B.S., M.S., Sc.D.	Atlanta, Ga.
1945	SIDNEY D. KLINE, A.M., LL.B., LL.D.	Reading
1968	*SAMUEL J. MCCARTNEY, JR., Ph.B., LL.B.	West Orange, N. J.
1968	JOHN S. SNYDER, A.B.	New York, N. Y.
1964	J. WILLIAM STUART, A.B.	New York, N. Y.
1959	LESTER A. WELLIVER, A.B., B.D., D.D., LL.D.	Harrisburg

TERM EXPIRES 1973

1952	CARL C. CHAMBERS, B.S., Sc.D.	Philadelphia
1958	EDWARD G. LATCH, A.B., B.D., A.M., D.D.	Rockville, Md.
1969	JOHN W. MCCONNELL, A.B., Ph.D., D.Sc.	Durham, N. H.
1959	JOHN B. PETERS, Ph.B.	Gardners
1969	*VICTORIA HANN REYNOLDS, B.A., M.A.	Oakland, Cal.
1969	E. DONALD SHAPIRO, A.B., LL.B.	Harrison, N. Y.
1948	ROBERT A. WAIDNER, A.B., LL.B.	Baltimore, Md.
1967	MYRON F. WICKE, A.B., A.M., Ph.D., S.T.D.	Nashville, Tenn.
1966	HARRY C. ZUG, B.A., M.B.A.	Philadelphia

EMERITI

1943	KARL E. RICHARDS, Ph.B.	Harrisburg
------	-------------------------	------------

**Alumni Trustee*

Officers of Administration

1969-1970

HOWARD LANE RUBENDALL

The President of the College, Lemuel T. Appold Foundation (1961).

A.B., Dickinson College, 1931; D.D., 1945; B.D., Union Theological Seminary, 1937; L.H.D., Trinity College, 1957; LL.D., University of Pennsylvania, 1966; LL.D., Dickinson School of Law, 1966.

GERALD STANLEY HAWKINS

Dean of the College, Research Professor of Astronomy (1969).

B.S., London University, 1949; Ph.D., University of Manchester, England, 1952; D.Sc., 1963.



MERLE FREDERICK ALLSHOUSE

Associate Dean of the College, Associate Professor of Philosophy (1963).

B.A., DePauw University, 1957; M.A., Yale University, 1959; Ph.D., 1965.

PAUL HENRY ANDERSON

Registrar (1969).

B.S., Bloomsburg State College, 1958; M.S., Southern Illinois University, 1961.

ROBERT ALLAN HOWARD

Director of Admissions (1969).

A.B., Colgate University, 1949.

HAROLD REESE GILLESPIE, JR.

Dean of Students, Assistant Dean of the College (1960).

B.A., University of Texas, 1951; M.A., 1956.

MARY FRANCES WATSON

Associate Dean of Students and Dean of Women (1968).

B.A., Wichita State University, 1959; M.A., 1960.

THOMAS WILLIAM CARVER

Assistant Dean of Students and Dean of Men (1968).

A.B., Tarkio College, 1962; M.A., Bowling Green University, 1968.

PAUL EVANS KAYLOR

Chaplain of the College, Assistant Professor of Religion (1967).

B.A., Mercer University, 1951; B.D., Yale University, 1954.

ARTHUR DWIGHT PLATT

Executive Assistant to the President (1962).

B.S., Trinity College, 1928; M.A., Columbia University, 1935.

FRED ALWIN LUMB

Executive Director of Communications and Development (1967).

A.B., Dickinson College, 1929.

GEORGE SHUMAN, JR.

Financial Vice President and Treasurer (1935).

Ph.B., Dickinson College, 1957; LL.D., Lycoming College, 1958.

WILLARD GORDON BLOODGOOD

Business Manager and Comptroller (1953, 1967).

B.S., American International College, 1949; M.S., University of Massachusetts, 1950.

ROBERT WADDELL BELYEA

Chief Accountant and Acting Comptroller (1968).

B.A., Colby College, 1951.

Faculty

1969-1970

HOWARD LANE RUBENDALL

The President of the College, Lemuel T. Appold Foundation (1961).

A.B., Dickinson College, 1931; D.D., 1945; B.D., Union Theological Seminary, 1937; L.H.D., Trinity College, 1957; LL.D. University of Pennsylvania, 1966; LL.D., Dickinson School of Law, 1966.

GERALD STANLEY HAWKINS

Dean of the College, Research Professor of Astronomy (1969).

B.S., London University, 1949; Ph.D., University of Manchester, England, 1952; D.Sc., 1963.

HOWARD CHARLES LONG

Professor of Physics, Chairman of the Department of Physics and Astronomy, Assistant Marshal, Secretary of the Faculty (1957).

A.B., Northwestern University, 1941; Ph.D., Ohio State University, 1948.



EMERITI

WILLIAM WILCOX EDEL

The President of the College, Emeritus

A.B., Dickinson College, 1915; A.M., 1919; D.D., 1935; S.T.B., Boston University, 1921; L.H.D., Keuka College, 1944; D.D., Hobart College, 1944; LL.D., Gettysburg College, 1949; LL.D., University of Pennsylvania, 1949; D.Hu., Boston University, 1950; J.U.D., Lebanon Valley College, 1956; F.I.A.L., 1959.

HERBERT WING, JR.

Robert Coleman Professor Emeritus of History (1915).

A.B., Harvard College, 1909; A.M., University of Wisconsin, 1911; Ph.D., 1915; L.H.D., Dickinson College, 1960.

LEWIS GUY ROHRBAUGH

Thomas Bowman Professor Emeritus of Philosophy and Religion (1922).

A.B., Dickinson College, 1907; A.M., 1910; B.D., Drew Theological Seminary, 1910; Ph.D., State University of Iowa, 1922.

(Date first appointed appears in parenthesis)

WELLINGTON AMOS PARLIN

Professor Emeritus of Physics (1930).

A.B., Simpson College, 1921; M.S., University of Iowa, 1922;
Ph.D., Johns Hopkins University, 1929.

JOHN CRAWFORD MILTON GRIMM

Professor Emeritus of Romance Languages (1922).

B.A., Ohio State University, 1911; M.A., 1912; Ph.D., University
of Pennsylvania, 1916.

WILLIAM DRUM GOULD

*George Henry and Bertha Curry Ketterer Professor Emeritus of
Philosophy and Religion (1937).*

A.B., Wesleyan University, 1919; B.D., Garrett Biblical Insti-
tute, 1922; Ph.D., Boston University, 1929.

CHARLES DAVID KEPNER

Professor Emeritus of Sociology (1946).

B.A., Williams College, 1916; A.M., Harvard University, 1917;
S.T.B., Andover Theological Seminary, 1922; Ph.D., Columbia
University, 1936.

ELMER CHARLES HERBER

Professor Emeritus of Biology (1929).

A.B., Ursinus College, 1925; A.M., University of Pennsylvania,
1929; Sc.D., Johns Hopkins University, 1941.

MARY BUCKLEY TAINTOR

Professor Emerita of Romance Languages (1928).

A.B., Ripon College, 1911; A.M., Leland Stanford Jr. Univer-
sity, 1918.

FRIEDRICH SANDELS

Professor Emeritus of German (1946).

Ph.D., University of Giessen, Germany, 1912.

JAMES CLAIR McCULLOUGH

Richard V. C. Watkins Professor Emeritus of Education (1947).

Ph.B., Dickinson College, 1909; A.M., 1912; Ph.D., New York
University, 1939.

RALPH SCHECTER

Thomas Beaver Professor Emeritus of English Literature (1922).

A.B., University of Illinois, 1916.

CHARLES COLEMAN SELLERS

Librarian Emeritus with rank of Professor, Historian of the College and Curator of Dickinsoniana (1949).

B.A., Haverford College, 1925; M.A., Harvard University, 1926; Litt.D., Temple University, 1957.

ARTHUR MAX PRINZ

Professor Emeritus of Economics (1948).

Ph.D., University of Berlin, 1923; *Lindback Award for Distinguished Teaching, 1965-1966.*

HENRY LINCOLN YEAGLEY

The Joseph Priestley Professor of Natural Philosophy; Professor of Physics and Astronomy (1958).

B.S., Pennsylvania State University, 1925; M.S., 1927; Ph.D., 1934.

DAVID IVAN GLEIM

Professor Emeritus of Chemistry (1946).

B.S., Franklin and Marshall College, 1918; M.A., Columbia University, 1920.

MARGARET McALPIN RAMOS

Professor Emerita of Modern Languages (1950).

A.B., Syracuse University, 1931; M.A., University of Tennessee, 1948.

ASA W. CLIMENHAGA

Associate Professor Emeritus of Education (1950).

A.B., Taylor University, 1919; M.A., Wittenberg University, 1940; Ed.D., Syracuse University, 1945.

HERBERT ROYCE

Associate Professor Emeritus of Modern Languages (1959).

Dr. rer. pol., University of Kaliningrad, 1926.



OFFICERS OF INSTRUCTION

DENNIS PETER AKIN

Associate Professor of Fine Arts, Chairman of the Department of Fine Arts (1969).

B.F.A., University of Kansas, 1956; M.F.A., University of Colorado, 1958.

*HERBERT S. ALEXANDER

Associate Professor of Psychology (1963).

A.B., Brown University, 1952; M.A., Columbia University, 1960; Ph.D., 1965.

GEORGE JAMES ALLAN

Associate Professor of Philosophy, Chairman of the Department of Philosophy, Assistant Marshal of the College (1963)

B.A., Grinnell College, 1957; B.D., Union Theological Seminary, 1960; Ph.D., Yale University, 1963. *Lindback Award for Distinguished Teaching, 1968-1969.*

MERLE FREDERICK ALLSHOUSE

Associate Professor of Philosophy, Associate Dean of the College, Assistant Marshal of the College (1963).

B.A., DePauw University, 1957; M.A., Yale University, 1959; Ph.D., 1965.

BRUCE R. ANDREWS

Associate Professor of Political Science, Assistant Marshal of the College (1960).

A.B., Syracuse University, 1950; Ph.D., Maxwell Graduate School of Citizenship and Public Affairs, 1961.

PAUL FRANCIS MATHEW ANGIOLILLO

Professor of French Language and Literature, Chairman of the Department of Modern Languages, Assistant Marshal of the College (1962).

A.B., Columbia University, 1938; A.M., in French, Columbia University, 1939; Ph.D., 1946; Postdoctoral Studies, University of Geneva, 1946-47; Officier d'Académie, 1956; Officier des Palmes Académiques, 1961. *Lindback Award for Distinguished Teaching, 1964-1965.*

NORMAN L. ANNIS

Lecturer in Fine Arts for the Fall Semester 1969 (1969)

B.A., University of Northern Iowa, 1953; M.F.A., University of Iowa, 1959.

JAMES T. AYRE

Assistant Professor of Education (1969).

B.S., Mansfield State College, 1936; M.S., Bucknell University, 1947.

* On leave, 1969-70.

JOHN WILLIAM BARBER

Assistant Professor of Military Science (1969).

B.S., University of Wisconsin, 1965; Captain, Armor, U. S. Army.

KATHLEEN WHITE BARBER

Assistant Professor of Physical Education (1960).

A.B., Syracuse University, 1947.

LEE WILMER BARIC

Associate Professor of Mathematics (1964).

B.S., Dickinson College, 1956; M.Sc., Lehigh University, 1961; Ph.D., 1966.

DANIEL RODNEY BECHTEL

Associate Professor of Religion, Chairman of the Department of Religion (1964).

A.B., Franklin and Marshall College, 1954; B.D., Yale University, 1958; Ph.D., Drew University, 1964.

JOHN EDWARD BENSON

Professor of Chemistry, Chairman of the Department of Chemistry, Charles A. Dana Professor of Chemistry (1964).

B.S., The Pennsylvania State University, 1950; M.A., Princeton University, 1953; Ph.D., 1957.

WILLIAM HOWARD BENSON

Associate Professor of Mathematics (1955).

B.S., U. S. Naval Academy, 1925; Graduate, U. S. Navy Postgraduate School, 1934.

PAUL JOSEPH BIEBEL

Associate Professor of Biology (1963).

B.S., University of Notre Dame, 1949; M.S., St. Louis University, 1955; Ph.D., Indiana University, 1963.

ELIZABETH JEAN BILLINGS

Instructor in French and German (1965).

A.B., Western Reserve University, 1944; M.A., 1945; Certificate, Hochschule für Musik (Stuttgart, Germany), 1954.

MARIANNA BOGOJAVLENSKY

Associate Professor of German and Russian Language and Literature (1963).

M.A., University of Helsinki, 1939; Ph.D., University of Pennsylvania, 1959.

*HARRY FEHR BOOTH

Associate Professor of Religion (1964).

A.B., Harvard College, 1949; S.T.B., Boston University, 1952;
Ph.D., 1963. *Lindback Award for Distinguished Teaching*,
1966-67.

GENE T. BOND

Professor of Military Science (1968)

B.S., Sam Houston State College, 1952; Lt. Colonel, Infantry,
U. S. Army.

RICHARD J. BORIS

Assistant Professor of Political Science (1969).

A.B., Hunter College, 1964; M.A., Indiana University, 1966.

WILLIAM ROBERT BOWDEN

*Professor of English, Chairman of the Department of English,
Assistant Marshal of the College (1948).*

A.B., Haverford College, 1935; A.M., Duke University, 1937;
Ph.D., Yale University, 1948.

DOROTHY J. BOWERS

Reference Librarian with Rank of Assistant Professor (1967).

B.A., Wilson College, 1963; M.S. in L.S., Drexel School of
Library Science, 1967.

DONALD VINCENT BOWIE

Instructor in English (1969).

B.A., Tufts University, 1967; M.A., The Johns Hopkins Univer-
sity, 1969.

LOUISE BROUJOS

Instructor in Public Speaking (1963).

B.S., California State Teachers College, 1949; M.L., University
of Pittsburgh, 1952.

DAVID FRANTZ BRUBAKER

Associate Professor of Drama (1956).

A.B., Franklin and Marshall College, 1948. *Lindback Award for
Distinguished Teaching*, 1967-68.

TRUMAN CAMPBELL BULLARD

*Assistant Professor of Music, Chairman of the Department of
Music (1965).*

A.B., Haverford College, 1960; A.M., Harvard University, 1963.

* On leave, 1969-70.

SISTER SARA BUTLER, M.S.B.T.

Visiting Assistant Professor of Religion (1969).

B.S., Fordham University, 1961; M.A., The Catholic University of America, 1963.

JAMES WILLIAM CARSON

Associate Professor of History (1956).

B.S., in Education, Miami University, 1948; M.A., 1951.

DOROTHY H. CIESLICKI

Serials Librarian with Rank of Assistant Professor (1967).

B.S., Bucknell University, 1946; M.S. in L.S., School of Library Service, Columbia University, 1967.

ROBERT EBERSOLE CLARKE

Instructor in Sociology (1969).

B.A., Goddard College, 1966; M.A., University of Pittsburgh, 1969.

MARCIA BACON CONNER

Instructor in English (1964).

B.A., Cornell College, 1947; M.A., Teachers College, Columbia University, 1949.

STEPHEN B. COSLETT

Associate Professor of Psychology, Director of Counseling, Director of the Summer Session (1960).

B.S., University of Pittsburgh, 1953; M.A., University of Denver, 1957; Ph.D., 1960.

RAY H. CRIST

Professor of Chemistry (1963).

A.B., Dickinson College, 1920; Sc.D., 1960; A.M., Columbia University, 1922; Ph.D., 1926.

CECILIA JEAN DAVIS

Instructor in Fine Arts (1969)

BETTIE ANNE DOEBLER

Associate Professor of English (1961).

B.A., Duke University, 1953; M.A., 1955; Ph.D., University of Wisconsin, 1961.

JOHN WILLARD DOEBLER

Associate Professor of English (1961).

B.A., Duke University, 1954; M.A., University of Wisconsin, 1955; Ph.D., 1961.

RUSSELL ALLAN DONDERO

Assistant Professor of Political Science (1969).

B.A., Whitman College, 1964; M.A., University of Minnesota, 1968.

WILLIAM E. DORNEMANN

Assistant Professor of German (1967).

B.A., University of Connecticut, 1961; M.A., 1966.

JOHN WILLIAM DRAPER

Instructor in Spanish (1968).

B.A., DePauw University, 1965; M.A., Middlebury College, 1968.

JOSEPH GORDON DUCHARME

Associate Professor of Physical Education, Chairman of the Department of Physical Education (1955).

B.S., in Physical Education, Ithaca College, 1948; M.A., in Physical Education, New York University, 1951.

DAVID BALBACH EAVENSON

Associate Professor of Physical Education, Director of Athletics (1955).

B.S., Bucknell University, 1954.

LARRY A. ENGBERG

Instructor in Psychology (1969).

B.A., Montana State University, 1968.

STEPHEN C. ERSKINE

Assistant Reference Librarian with Rank of Instructor (1968).

A.B., Middlebury College, 1962; M.S. in Library Science, Simmons College, 1968.

*FREDERICK POND FERRÉ

Professor of Philosophy, Mace Bearer (1962).

A.B., Boston University, 1954; M.A., Vanderbilt University, 1955; Ph.D., University of St. Andrews, 1959.

DONALD WILLIAM FLAHERTY

Professor of Political Science, Chairman of the Department of Political Science (1952).

A.B., Syracuse University, 1943; Ph.D., 1954.

*MILTON EMBICK FLOWER

Robert Blaine Weaver Professor of Political Science, Assistant Marshal (1947).

A.B., Dickinson College, 1931; A.M., Columbia University, 1938; Ph.D., 1946.

* On leave, 1969-1970.

YATES McDONALD FORBIS

Librarian with Rank of Associate Professor (1965).

B.S., Appalachian State Teachers College, 1951; M.A., 1955;
M.S. in L.S., Columbia University, 1960.

ARTURO A. FOX

Assistant Professor of Spanish (1966).

Bachelor of letters and sciences, The Friends School, Institute
Pre-universitario de Holguin (Cuba), 1952; Doctor en Derecho,
University of Havana, 1960.

DANIEL JOEL FRÉVAL

*Instructor in Modern Languages, Coordinator of the Language Lab-
oratory (1969).*

Baccalauréat en Philosophie, Lycée de Garçons, Le Havre,
France, 1957; Certificat d'Etudes Littéraires Générales, Univer-
sité de Caen, 1960.

JOSEPH A. GAHN

Assistant Professor of History (1967).

A.B., Dartmouth College, 1955; M.A., State University of
New York, 1960; Ph.D., Syracuse University, 1966.

CLARKE WILLIAM GARRETT

*Associate Professor of History and Director, Center for Interna-
tional Studies, Bologna, Italy (1965).*

B.A., Carleton College, 1956; M.S., University of Wisconsin,
1957; Ph.D., 1961.

WARREN JAMES GATES

*Professor of History, Chairman of the Department of History,
Coordinator of American Studies (1951).*

A.B., Duke University, 1941; A.M., University of Pennsylvania,
1947; Ph.D., 1951.

WILBUR J. GOBRECHT

*Associate Professor of Physical Education, Head Football Coach
(1960).*

A.B., Dickinson College, 1952; A.M., Duke University, 1959.

MALCOLM GOLDSTEIN

Assistant Professor of Music (1969).

B.A., Columbia College 1956; M.A., Columbia University, 1960.

DONALD TURNER GRAFFAM

Professor of Psychology and Education (1952).

A.B., University of Redlands, 1926; A.M., University of South-
ern California, 1933; Ed.D., 1949.

SANDRA LOUISE GUSTAFSON

Graduate Fellow in English (1969).

B.A., University of Kansas, 1963; B.S. in Ed., 1965; M.A. in English, 1965; M.A. in American Civilization, University of Pennsylvania, 1968.

HENRY WILLIAM ANDREW HANSON, III

Assistant Professor of Geology (1966).

B.S., University of Alaska, 1960; M.S., Pennsylvania State University, 1965; Ph.D., 1968.

JOAN PARKER HARMS

Instructor in Sociology (1968).

B.A., Michigan State University, 1961; M.A., 1963.

WILLIAM ALBERT HARMS

Assistant Professor of English (1968).

B.A., Hope College, 1961; M.A., Michigan State University, 1963.

HEBER REECE HARPER

Associate Professor of Political Science (1954).

B.S., Haverford College, 1942; M.A., University of Michigan, 1948.

FRANK RITTENHOUSE HARTMAN

Associate Professor of Psychology (1960).

B.S., Pennsylvania State Univ., 1953; M.S., 1955; Ph.D., 1957.

*ALFRED NEWLON HARTSHORN

Assistant Professor of English (1958).

A.B., University of Rochester, 1932; A.M., 1957.

GERALD STANLEY HAWKINS

Research Professor of Astronomy, Dean of the College (1969).

B.S., London University, 1949; Ph.D., University of Manchester, England, 1952; D.Sc., 1963.

JOHN STANTON HENDERSON

Assistant Professor of French (1966).

B.A., Bates College, 1961; M.A., Brown Univ., 1963; Ph.D., 1966.

AMOS BENJAMIN HORLACHER

Professor of English (1947).

A.B., Wesleyan University, 1926; S.T.B., Union Theological Seminary, 1929; D.D., Wesleyan University, 1943; M.A., Columbia University, 1952; Ed.D., 1957. *Lindback Award for Distinguished Teaching, 1960-1961.*

* On leave, 1969-1970.

ANDREW CRAIG HOUSTON

Associate Professor of Economics, Chairman of the Department of Economics, Marshal of the College (1956).

A.B., Pennsylvania State University, 1951; Graduate School for English Speaking Students, University of Stockholm, 1952; Ph.D., Pennsylvania State University, 1962.

MARVIN ISRAEL

Assistant Professor of Sociology (1968).

B.A., City College of New York, 1959.

ROBERT EVERETT JACKSON

Assistant Professor of Mathematics (1969).

A.B., University of Texas, 1964; M.A., 1966; Ph.D., 1969.

BENJAMIN DAVID JAMES

Richard V. C. Watkins Professor of Psychology and Education (1941).

A.B., Dickinson College, 1934; M.A., Bucknell University, 1936; Ph.D., University of Pennsylvania, 1962.

CHARLES AUSTIN JARVIS

Assistant Professor of History (1969).

B.A., DePauw Univ., 1963; M.A., University of Missouri, 1964.

WILLIAM BOWMAN JEFFRIES

Professor of Biology (1959).

B.S., University of Pittsburgh, 1949; M.A., University of North Carolina, 1952; Ph.D., 1955. *Lindback Award for Distinguished Teaching, 1964-65.*

ANNE-MARIE JOYCE

Assistant Professor of French (1967).

A.B., College of the Holy Names, 1961; M.A., Johns Hopkins University, 1964.

JEAN BRALEY KATZ

Assistant Professor of Modern Languages (1969).

B.A., Carleton College, 1960; M.A.T., Johns Hopkins University, 1961; M.A., University of California, 1965; Ph.D., Vanderbilt University, 1969.

VYTAUTAS M. KAVOLIS

Associate Professor of Sociology, Chairman of the Department of Sociology and Anthropology (1964).

B.A., University of Wisconsin, 1952; M.A., Harvard University, 1956; Ph.D., 1960.

PAUL EVANS KAYLOR

Chaplain of the College, Assistant Professor of Religion (1967).

B.A., Mercer University, 1951; B.D., Yale University, 1954.

*CHARLES FLINT KELLOGG

Boyd Lee Spahr Professor of History (1946).

A.B., Bard College of Columbia University, 1931; M.A., Harvard University, 1933; L.H.D., Bard College, 1960; Ph.D., Johns Hopkins University, 1963.

CAROLINE HEATH KENNEDY

Professor of Modern Languages (1948).

A.B., Birmingham-Southern College, 1926; M.A., Alabama University, 1930; Docteur D'Université, Université Laval, 1942.

ARTHUR KILGORE

Assistant Instructor, Reserve Officer Training Corps Unit (1968).

Sergeant Major, U. S. Army.

JOHN LLOYD KING

Associate Professor of Accounting, Assistant Marshal of the College (1959).

B.A., Princeton University, 1948; M.A., University of Denver, 1950.

**WILLIAM WRIGHT KIRK

Professor of Modern Languages (1946).

A.B., University of Delaware, 1930; M.A., Middlebury French School, 1935; Ph.D., University of Illinois, 1955.

MICHAEL B. KLINE

Assistant Professor of French (1968).

B.A., Rutgers—The State University, 1961; M.A., Brown University, 1962.

RICHARD M. LANE

Assistant Professor of Biology (1967).

B.S., Loyola College, 1959; M.S., University of Maryland, 1964; Ph.D., 1969.

KENNETH L. LAWS

Associate Professor of Physics (1962).

B.S., California Institute of Technology, 1956; M.S., University of Pennsylvania, 1958; Ph.D., Bryn Mawr College, 1962.

* *On leave, 1969-1970.*

** *On leave, spring semester, 1970.*

PRISCILLA WATSON LAWS

Assistant Professor of Physics (1965).

B.A., Reed College, 1961; M.A., Bryn Mawr College, 1963;
Ph.D., 1965.

ROBERT EDWARD LEYON

Assistant Professor of Chemistry (1969).

B.A., Williams College, 1958; M.A., Princeton University, 1960;
Ph.D., 1962.

JOHN H. LIGHT

Associate Professor of Mathematics (1959).

B.S., Lebanon Valley College, 1948; M.S. in Physics, Pennsylvania State University, 1950; M.S., Eng. Mech., 1957.

*PHILIP N. LOCKHART

Professor of Classical Languages (1963).

B.A., University of Pennsylvania, 1950; M.A., University of North Carolina, 1951; Ph.D., Yale University, 1959. *Ganoe Award for Inspirational Teaching, 1968-69.*

HOWARD CHARLES LONG

Professor of Physics, Chairman of the Department of Physics and Astronomy, Assistant Marshal, Secretary of the Faculty (1959).

A.B., Northwestern University, 1941; Ph.D., Ohio State University, 1948.

JOHN W. LUETZELSCHWAB

Assistant Professor of Physics (1968).

A.B., Earlham College, 1962; M.A., Washington University, 1968; Ph.D., 1968.

ANTHONY MACH

Assistant Professor of Economics (1967).

B.A., Washington & Jefferson, 1952; M.B.A., University of Pennsylvania, 1957; Ph.D., Boston College, 1967.

ROBERT ELMER MARSHALL

Assistant Professor of Physical Education (1964)

B.P.E., Purdue University, 1962.

PETER EVANS MARTIN

Associate Professor of Mathematics, Chairman of the Department of Mathematics (1965).

B.A., Yale University, 1950; M.A., Harvard University, 1951;
Ph.D., 1958.

*On leave, 1969-1970.

ENRIQUE JOSE MARTÍNEZ

Assistant Professor of Spanish (1965).

B.A., Universidad de Barcelona, 1953; B.D., Eastern Baptist Theological Seminary, 1956; Th.M., 1958; M.A., Temple University, 1960.

BARBARA BROWN McDONALD

Associate Professor of Biology (1956).

B.S., Simmons College, 1948; M.A., Columbia University, 1955; Ph.D., 1957.

DANIEL JAMES McDONALD

Associate Professor of Biology, Chairman of the Department of Biology (1956).

B.S., Siena College, 1950; M.A., Columbia University, 1952; Ph.D., 1955.

DAVID BALFOUR MEIL

Assistant Professor of Philosophy (1969).

B.A., Yale University, 1962; M.A., University of Pittsburgh, 1965.

RICHARD ARNOLD MESTER

Graduate Fellow in Philosophy (1969).

B.A., Aquinas Institute of Philosophy, 1962; M.A. and Ph.L., 1963.

MARVIN W. MEYER

Assistant Professor of Biology (1967).

B.A., Wabash College, 1962; M.S., Northwestern University, 1966; Ph.D., Northwestern University, 1967.

FREDERICK ALBERT MORSELL

Visiting Instructor in Dramatic Arts for the Fall Semester 1969 (1969).

A.B., Dickinson College, 1962.

MICHAEL E. MURRAY

Assistant Professor of Philosophy (1968).

B.A., University of Notre Dame, 1963; M.A., University of Texas, 1965; Ph.D., Yale University, 1968.

CORDELIA MILLER NEITZ

Catalogue Librarian with Rank of Assistant Professor (1962).

B.S. in L.S., Syracuse University, 1931; M.S. in Ed., Temple University, 1968.

*ROGER EASTMAN NELSON

Professor of Mathematics (1949).

B.S., U. S. Naval Academy, 1922; M.A., Dartmouth College, 1946.

WILLIAM NICKEY

Assistant Professor of Physical Education (1966).

B.S., West Chester State College, 1957.

**KARL ROBERT NILSSON

Associate Professor of Political Science (1962).

B.A., Temple University, 1951; M.A., Johns Hopkins University, 1957; Ph.D., Columbia University, 1964. *Lindback Award for Distinguished Teaching, 1963-1964.*

STANLEY NODDER, JR.

Associate Professor of Classical Languages, Chairman of the Department of Classical Languages, Marshal of the College (1961).

A.B., Eastern Baptist College, 1953; B.D., Eastern Theological Seminary, 1957; A.M., University of Pennsylvania, 1958; Ph.D., 1964.

GARRETT R. NOYES

Assistant Professor of Military Science.

B.S., U. S. Military Academy, 1961; Major, Infantry, U. S. Army.

CLIFFORD ARTHUR PENCE, JR.

Assistant Professor of Mathematics (1969).

A.B., Knox College, 1965; A.M., University of Illinois, 1967.

JOHN CHRISTIAN PFLAUM

Professor of History (1946).

B.S., University of Pennsylvania, 1925; M.A., 1929; *Lindback Award for Distinguished Teaching, 1965-1966.*

EDWARD ALBERT PHILLIPS, JR.

Instructor in Classical Languages (1969).

B.A., Dickinson College, 1967; M.A., University of Chicago, 1969.

PETER L. PODOL

Assistant Professor of Spanish and Italian (1968).

B.A., University of Pennsylvania, 1963; M.A., Columbia University, 1964.

*On leave, fall semester, 1969.

**On leave, 1969-1970.

J. FORREST POSEY, JR.

Associate Professor of Music (1962).

B.Mus., Hardin-Simmons University, 1951; M.Mus., University of Texas, 1954; M.A., Harvard University, 1962.

NOEL POTTER, JR.

Assistant Professor of Geology (1969).

A.B., Franklin and Marshall College, 1961; M.A., Dartmouth College, 1963.

KENNETH EARL REEVES

Assistant Professor of Military Science (1969).

B.S., University of Colorado, 1964; Captain, Field Artillery, U. S. Army.

GEORGE NELSON RHYNE

Assistant Professor of History (1965).

A.B., Davidson College, 1961; M.A., University of North Carolina, 1963; Ph.D., 1968.

JOHNNY SUMNER ROBINSON

Assistant Professor of Military Science (1969).

B.S., The Citadel, 1963; Captain, Armor, U. S. Army.

HORACE ELTON ROGERS

Alfred Victor duPont Professor of Analytical Chemistry (1925).

B.S., Dickinson College, 1924; M.A., Lafayette College, 1925; Ph.D., Princeton University, 1930. *Lindback Award for Distinguished Teaching, 1962-1963.*

*DIETER JUERGEN ROLLFINKE

Assistant Professor of German (1964).

B.S., Rensselaer Polytechnic Institute, 1963; M.A., Columbia University, 1966.

GERALD C. ROPER

Associate Professor of Chemistry (1962).

A.A., Boston University, 1953; B.A., 1956; Ph.D., 1966.

KENNETH MARK ROSEN

Assistant Professor of English (1969).

B.A., Cornell University, 1959; M.A., San Francisco State College, 1962.

*On leave, 1969-1970.

EUGENE JOSEPH ROSI

Associate Professor of Political Science (1965).

B.A., Syracuse University, 1952; M.A., 1953; Diploma, Johns Hopkins School of Advanced International Studies (Bologna), 1958; Ph.D., Columbia University, 1964.

HILBERT S. SABIN

Associate Professor of Fine Arts (1962).

Certificate, Pennsylvania Academy of Art, 1957; B.F.A., University of Pennsylvania, 1958; M.F.A., University of Pittsburgh, 1962.

WILLIAM R. SCHEARER

Associate Professor of Chemistry (1968).

B.S., Ursinus College, 1957; M.A., Princeton University, 1959; Ph.D., 1963.

JOSEPH HARRIS SCHIFFMAN

Professor of English, James Hope Caldwell Chair of American Studies (1958).

B.A., Long Island University, 1937; M.A., Columbia University, 1947; Ph.D., New York University, 1951. *Lindback Award for Distinguished Teaching, 1961-1962.*

HENRY WADE SEAFORD, JR.

Assistant Professor of Sociology and Anthropology (1961).

A.B., Wheaton College, 1946; A.M., Harvard University, 1964.

DONALD RECK SEIBERT

Associate Professor of Physical Education (1957).

B.S., George Washington University, 1943; M.A., Columbia University, 1950.

CHARLES COLEMAN SELLERS

Historian of the College and Curator of Dickinsoniana with Rank of Professor (1949).

B.A., Haverford College, 1925; M.A., Harvard University, 1926; Litt.D., Temple University, 1957.

DEBORAH YEE-SHING SHAM

Assistant Cataloguer with Rank of Instructor (1968).

B.S., Philippine Women's University, 1962; M.L.S., Texas Women's University, 1966.

RICHARD MOATS SHEELEY

Assistant Professor of Chemistry (1969).

B.S., University of Utah, 1957; M.S., Pennsylvania State University, 1959; Ph.D., Brigham Young University, 1964.

RICHARD MAE SIA

Professor of Physics (1954).

B.S., Northwestern University, 1928; M.S., University of Chicago, 1932.

ROBERT D. SIDER

Assistant Professor of Classical Languages (1968).

B.A. (Honors, Classics), University of Saskatchewan, 1955; M.A., Oxford University, 1956; B.A. (Honors, Theology), 1958; M.A., 1964; D.Phil. (Patristics), 1965.

WILLIAM SLOANE

Martha Porter Sellers Professor of English (1946).

A.B., Hamilton College, 1932; M.A., Columbia University, 1933; Ph.D., 1947.

RALPH L. SLOTTEN

Assistant Professor of Religion (1966).

B.A., Drake University, 1948; B.D., Drake Divinity School, 1951; M.A., University of Chicago, 1958; Ph.D., 1966.

JAMES B. SMILLIE

Assistant Cataloguer with Rank of Instructor (1967).

B.A., Haverford College, 1961; M.L.S., Rutgers Graduate School of Library Service, 1967.

THOMAS SCOTT SMITH

Assistant Professor of Physics (1969).

A.B., Princeton University, 1963; Ph.D., University of Maryland, 1967.

HARRY JOSEPH STAGGERS

Graduate Fellow in History (1969).

B.A., Wake Forest College, 1965; M.A., College of William and Mary, 1967.

GORDON ALBERT STEGINK

Assistant Professor of Mathematics, Director of the Computer Center (1965).

A.B., Hope College, 1961; A.M., Washington University, 1963.

PETER LEONARD STEINER

Assistant Professor of Modern Languages (1969).

A.B., University of Miami, 1962; M.A., University of Pittsburgh, 1967.

JACK R. STODGHILL

Assistant Professor of Mathematics (1967).

A.B., Wabash College, 1957; M.S., Purdue University, 1960.

THOMAS A. STONE

Assistant Professor of Economics (1968).

S.B., Massachusetts Institute of Technology, 1960.

CANDADAI K. TIRUMALAI

Assistant Professor of English (1967).

B.A., Osmania University, India, 1957; M.A., 1959; Ph.D., Pennsylvania State University, 1969.

ANNE HAGOPIAN VAN BUREN

Assistant Professor of Fine Arts (1969).

A.B., Radcliffe College, 1948; M.A., University of Texas, 1964.

WILLIAM W. VERNON, JR.

Associate Professor of Geology, Chairman of the Department of Geology (1957).

B.A., University of New Hampshire, 1952; M.S., Lehigh University, 1955; Ph.D., 1964. *Lindback Award for Distinguished Teaching, 1966-67.*

HAROLD KNIGHT VORIS

Assistant Professor of Biology (1969).

A.B., Hanover College, 1962; Ph.D., University of Chicago, 1969.

DAVID ALAN WACHTER

Assistant Professor of Physical Education (1969).

A.B., Dickinson College, 1959; M.A., Columbia University, 1968.

LEE ANN WAGNER

Assistant Professor of Physical Education (1952, 1966).

B.S., Pennsylvania State University, 1948.

*RICHARD HENRY WANNER

Professor of Psychology, Chairman of the Department of Psychology and Education (1946; 1961).

A.B., Franklin and Marshall College, 1939; Ed.M., Harvard University, 1940; Ed.D., 1968.

* *On leave, fall semester, 1969.*

FRANCIS WAYLAND WARLOW

Professor of English (1947).

A.B., Johns Hopkins University, 1931; M.A., University of Pennsylvania, 1946; Ph.D., 1959.

DAVID L. WATKINS

Assistant Professor of Physical Education and Head Basketball Coach (1967).

B.S., The Pennsylvania State University, 1958; M.A., State University of Iowa, 1961.

STEPHEN WEINBERGER

Assistant Professor of History (1969).

B.A., Northeastern University, 1965; M.A., University of Wisconsin, 1966.

WILLIAM HOOD WISHMEYER

Associate Professor of English (1957).

B.A., Johns Hopkins University, 1948; M.A., 1949; Ph.D., University of Pennsylvania, 1957.

NEIL S. WOLF

Assistant Professor of Physics (1967).

B.S., Queens College, 1958; M.S., Stevens Institute of Technology, 1960; Ph.D., 1966.

ISINGARD MOLLER WOODWORTH

Instructor in Modern Languages (1969).

A.B., University of California, Berkeley, 1968; M.L.S., 1969.

LEWIS C. WOODWORTH

Instructor in Russian and German (1968).

A.B., University of California, Berkeley, 1965; M.A., 1967.

HENRY JAMES YOUNG

Professor of History (1957).

A.B., Franklin and Marshall College, 1932; Ph.D., Johns Hopkins University, 1955.

Standing Committees of the Faculty

The President and the Dean of the College are ex officio members of all committees except the Committee on Academic Freedom and Tenure and the Research and Development Committee. Terms expire on June 30 in the year indicated.

PERSONNEL COMMITTEE

- 1970—Professors Andrews and Schiffman
- 1971—Professors Houston and Nodder
- 1972—Professor K. Laws

POLICY COMMITTEE

- At Large: Professors J. Benson (1970), Fox (1971), and Rosi (1972)
- Standing Committees: Academic Program: Two members; Academic Standards: One member; Admissions and Student Aid: One member; Personnel: One member; Student Affairs: Two members.
- Administration: President Rubendall, Deans Gillespie and Hawkins, (ex officio) and Professor Forbis.

ACADEMIC PROGRAM

- 1970—Professors Carson, Henderson, Sider, and Vernon
- 1971—Professors Bowden, Mach, and Wolf
- 1972—Professors Angiolillo and Slotten

STUDENT AFFAIRS

- 1970—Professors Rhyne and Watkins
- 1971—Professors Hansen and Roper
- 1972—Professors Kline and Israel

ACADEMIC FREEDOM AND TENURE

- 1970—Professors Carson and Benson
- 1971—Professors Bechtel and Bowden
- 1972—Professors Sloane, Jeffries, and King

ACADEMIC STANDARDS

- 1970—Professor Bogojavlensky
- 1971—Professors Gates and Tirumalai
- 1972—Professor Jeffries

ADMISSIONS AND STUDENT AID

- 1970—Professor Martin
- 1971—Professor Brubaker
- 1972—Professors J. Doebler and Kaylor

RESEARCH AND DEVELOPMENT

- Professors Posey, Rogers and Young
- Administration: Professor Forbis, Dean Hawkins

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1969-1970

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WESTON C. OVERHOLT, JR.	GEORGE SHUMAN, JR.	EUGENE J. ROSI
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ROBERT W. CHILTON, *Chairman*

GLENN E. TODD, *Vice Chairman*

JOHN B. PETERS

GEORGE SHUMAN, JR.

HOWARD L. RUBENDALL

*J. BOYD LANDIS, *College Counsel*

Life Trustee Members: S. WALTER STAUFFER, GLENN E. TODD

PUBLIC RELATIONS COMMITTEE

JOHN S. SNYDER, *Chairman*

*EVAN C. FREY

E. DONALD SHAPIRO

SAMUEL J. MCCARTNEY, JR.

J. WILLIAM STUART

ROBERT A. WAIDNER

LONG-RANGE PLANNING COMMITTEE

CARL C. CHAMBERS, *Chairman*

ROLLAND L. ADAMS

C. LAW McCABE

CARL P. CLARE

W. GIBBS MCKENNEY

JOHN M. DAVIDSON

JAMES R. SHEPLEY

JOHN M. HOERNER

J. WILLIAM STUART

SIDNEY D. KLINE

HARRY C. ZUG

Life Trustee Members: ROSCOE O. BONISTEEL, GLENN E. TODD

COMMITTEE ON STUDENT AFFAIRS AND COMMUNICATIONS

C. LAW McCABE, *Chairman*

JOHN WESLEY LORD

E. DONALD SHAPIRO

EDWARD C. RAFFENSPERGER

ROBERT E. WOODSIDE

HARRY C. ZUG

*Non-trustee

July 1969

Directory of Administration

1969-1970

OFFICE OF THE PRESIDENT

Howard L. Rubendall, A.B., B.D., D.D., L.H.D., LL.D.	<i>President</i>
Arthur D. Platt, B.S., M.A.	<i>Executive Assistant to the President</i>

DIVISION OF ACADEMIC AFFAIRS

Gerald S. Hawkins, B.S., Ph.D., D.Sc.	<i>Dean of the College</i>
Merle F. Allshouse, B.A., M.A., Ph.D.	<i>Associate Dean</i>
Paul H. Anderson, B.S., M.S.	<i>Registrar</i>
Elizabeth M. Taylor, A.B., LL.B.	<i>Assistant Registrar</i>
Stephen B. Coslett, B.S., M.A., Ph.D.	<i>Director, Summer Session</i>
Gordon A. Stegink, A.B., A.M.	<i>Director, Computer Center</i>
Yates M. Forbis, B.S., M.A., M.S.L.S.	<i>Librarian</i>

OFFICE OF ADMISSIONS AND STUDENT AID

Robert A. Howard, A.B.	<i>Director of Admissions</i>
R. James Kornish, B.A.	<i>Associate Director</i>
Charles L. Twichell, B.A.	<i>Assistant Director and Director of Student Aid</i>
David D. Cuttino, A.B.	<i>Assistant Director</i>
Anne S. Hilton	<i>Administrative Assistant</i>

DIVISION OF BUSINESS AFFAIRS

Willard G. Bloodgood, B.S., M.S.	<i>Business Manager and Comptroller</i>
Robert W. Belyea, B.A.	<i>Chief Accountant and Acting Comptroller</i>
June Snyder	<i>Assistant Comptroller</i>
Howard G. Baum, A.B.	<i>Director of Auxiliary Enterprises</i>
Leroy S. Fatherree, Jr.	<i>Director of Physical Plant</i>
Paul S. Morris	<i>Assistant Director of Physical Plant</i>
Carl J. Stasyszyn	<i>Director of Food Service</i>
Lynn A. Coleman, B.S.	<i>Assistant Director of Food Service</i>
Kathleen L. Nailor	<i>Manager, Service Center</i>

OFFICE OF THE CHAPLAIN

Paul E. Kaylor, B.A., B.D.	<i>Chaplain</i>
Brian Lyke, B.A., B.D.	<i>Assistant Chaplain</i>

OFFICE OF THE TREASURER

George Shuman, Jr., Ph.B., LL.D.	<i>Financial Vice President and Treasurer</i>
----------------------------------	---

DIVISION OF DEVELOPMENT AND PUBLIC RELATIONS

Fred A. Lumb, A.B.	<i>Executive Director of Communications and Development</i>
Evan C. Frey, A.B.	<i>Director of Public Affairs, Director of Annual Giving</i>
Theodore C. Frederick	<i>Office Manager</i>
Gary R. Greene, B.A.	<i>Director, Institutional Giving, Director of Placement</i>
Lawrence A. Rand, A.B.	<i>Secretary of Alumni Annual Giving</i>
William K. Blanchard, B.A.	<i>Coordinator of Special Projects</i>
R. Wallace White, B.A.	<i>Director, Planned Giving</i>
Alfred N. Hartshorn, A.B., A.M.	<i>Staff Assistant</i>
Donald Moll	<i>Staff Photographer</i>
Roger H. Steck, B.A.	<i>Director of News Bureau</i>
Edward F. Luckenbaugh	<i>Manager of Sports Information</i>

DIVISION OF STUDENT AFFAIRS

Harold R. Gillespie, Jr., B.A., M.A.	<i>Dean of Students</i>
Mary Frances Watson, B.A., M.A.	<i>Associate Dean of Students and Dean of Women</i>
Thomas W. Carver, A.B., M.A.	<i>Assistant Dean of Students and Dean of Men</i>
Stephen B. Coslett, B.S., M.A., Ph.D.	<i>Director of Counseling</i>
Thomas E. McFeely, B.S., M.Ed.	<i>Coordinator of Student Activities</i>
David B. Eavenson, B.S.	<i>Director of Athletics</i>
Robert A. Fisher, M.D.	<i>Consulting Psychiatrist</i>
H. Robert Gasull, Jr., M.D.	<i>College Physician</i>
Robert A. Hollen, M.D.	<i>College Physician</i>
Harold G. Kretzing, M.D.	<i>College Physician</i>
Luther M. Whitcomb, M.D.	<i>College Physician</i>
Esther M. Bushey, R.N.	<i>Director, Health Center</i>
Annette G. Wymond, R.N.	<i>Assistant Director, Health Center</i>
Annabelle Pangonas, R.N.	<i>Staff Assistant, Health Center</i>
Nona Westerhoff, R.N.	<i>Staff Assistant, Health Center</i>
Singleton Sheaffer, Major (State Police, Ret.)	<i>Security Officer</i>

FULL-TIME COACHING STAFF

Kathleen W. Barber, A.B.	<i>Women's Field Hockey and Tennis Coach</i>
Joseph G. DuCharme, B.S., M.A.	<i>Head Cross Country and Track Coach</i>
David B. Eavenson, B.S.	<i>Head Soccer and Swimming Coach</i>
Wilbur J. Gobrecht, A.B., A.M.	<i>Head Football Coach; Head Lacrosse Coach</i>
Robert E. Marshall, B.P.E.	<i>Head Wrestling Coach; Assistant Football Coach</i>
William J. Nickey, B.S.	<i>Assistant Soccer Coach; Assistant Track Coach</i>
Donald R. Seibert, B.S., M.A.	<i>Head Golf Coach</i>
David A. Wachter, A.B., M.A.	<i>Assistant Football and Basketball Coach</i>
Lee Ann Wagner, B.S.	<i>Women's Basketball and Synchronized Swimming Coach</i>
David L. Watkins, B.S., M.A.	<i>Head Basketball Coach; Tennis Coach</i>

DEGREES CONFERRED BY THE COLLEGE

Commencement, May 25, 1969

Bachelor of Arts

Gregory Barton Abeln
Theodore Eaton Affleck
Jeannette Elizabeth Allen
James Joseph Alvino
John Michael Anspacher
John Eric Atherholt
W. Michael Babb
**Robert Arthur Bailey
Rignal Woodward Baldwin, IV
*Curtis Wayne Leshner Balthaser
Jeffrey Allen Barks
Gordon Alfred Barr
Judith Diemand Bartocchini
Richard Alan Bartocchini
Frederick Phillip Baughman, Jr.
**Susan Tinney Beard
Jacob Edward Beck, Jr.
Deborah Ellen Bell
Susan Jenks Bell
Janet R. Bender
John Ross Bengel
Rolf Werner Bienk
Susan Ann Bird
Mark D. Birdsall
Nancy Louise Bittle
Michael Anthony Bloom
Sara Kister Blumenthal
Dorothy Ellson Bond
Vance Everett Booher, III
Serge Chreptowicz Bouteneff
J. Keith Bown
Douglas Perry Boyd
James Frederick Braun
Roger Howard Brinker
S. David Brookes
Barbara Jo Brown
Deborah Bower Burke
Robert Howard Burris
Spencer Vernet Cadmus, Jr.
Michael Keen Campbell
Adele R. Capecelatro

*Graduated as of September 16, 1968

**Graduated as of February 3, 1969

Clifford Wayne Carey
Hiram Ambler Carpenter, III
Nicholas Giles Ceppi
*Ann Hinkel Clapp
Carol Ann Coale
*Nancy Jean Cocroft
*John Ronald Coleman
Donald Earl Collins
Roger Mahoney Cook
Timothy Robert Cook
Marian Lyndle Costenbader
*Kathleen Humlhanz Cupp
Linda Louise Dalrymple
Dianne Alberta Davies
Linda Gail Davies
Barbara Mae Davis
Thomas William Decker
Patricia Ann DeVoe
Christopher Ian Devries
Cyrus Palmer Dolbin
Pamela Denton Dunn
James Anthony Ebert
Eugene George Ehrens
Joan Ellen Eisenberg
James Hugh Emert
Robert Bennett Eskin
Eric Paul Evans
Kimberly Battle Feather
John Theodore Fee
Steven G. Felsher
John Courtney Fisher
Richard David Fissel
Peter Woodford Flowers
Gordon Forsyth, III
Jeremy Barton French
*Kathleen Martha Fried
**Nancy Rosenhoch Friedman
Elizabeth Eleanor Furbush
Jane Pillow Futcher
Patricia Ann Garbers
Jane Elizabeth Gardner

Arthur John Gatz, Jr.
William Wright Gearhart, Jr.
John Robert Gerard, Jr.
Charles Herbert Gifford, III
Barbara Glasmire
Dorothy Helen Gnos
Geoffrey Matthew Goldworm
Rosalie June Goodhart
Kit Warner Gordon
Fredric Richard Gottlieb
Joseph Barry Green
Jeffrey Harris Gribb
John Lawrence Griesemer
John Vincent Griffith
*Kathleen Mary Grimes
Susan Eugenia Gustafson
James Dennis Guyer
Doris Ann Hagerty
David Crawford Haile
Michael Handler
*Peter Paul Hanley
James Raymond Hanlin
Joseph Henry Hare
William James Harris
Douglas Richard Hartzell
Thomas Wilmont Heiple
Thomas Alan Hendricks
**M. Elizabeth Herley
Marjorie Beth Hersch
Kevin Adair Hess
Arthur E. Hirsh
Jon Michael Horne
**Kathryn Teener Horne
Samuel Bruce Horstein
Alice Irene Hornung
Mariann Hershey Horst
Jerre Stephen Hubley
William Charles Humphries
John James Hunter
Don Bruce Isaacson
Henry Branim Jaggard

Isaac Warner Jeanes, III
 Craig Diven Johnston
 Joanne Jolley

*C. Ryan Jones
 Edmund Bruce Jones
 Richard Frederic Jost, III
 Alfred H. Juechter
 Nancy Deborah Kahane
 Robert Mark Kahn
 Michael Kastenbaum
 Howard Alan Kave
 Adele Rae Keigler
 Edward Haines Keiper
 Nancy Antionette Keister
 George Louis Kelly
 James Carl Kennedy
 Janice Ann Kern
 J. Craig Kerr
 John Kunst Kerr
 Lorence Lee Kessler
 Barbara Jayne Kettle
 Judith Paula Kilpatrick
 Demaris Ann King
 Jane Kay Kirk

*Laurel Cutler Knecht
 John Frederick Kohn
 Richard Allen Kolb
 Suzanne Delp Lail
 Alan Ramsey Landis
 Glenn Edward Larson
 Stephen Robert Laueremann
 Carol Ann Lawrence
 Lois Jean Lawwill
 Barry Gene Lebo
 Julia B. Leverenz
 Allen Joseph Levin
 *David Lipinski
 Jane Hunter Litvin
 Steven Joseph Livingston
 Susan Louise Lloyd
 Robert Stephen Long
 Gilbert Haggerty Ludwig
 Kathryn Louise Mallick
 Carol Lea Malmi
 Jeffrey Alan Manning

*Graduated as of September 16, 1968

**Graduated as of February 3, 1969

Dennis A. Marge
 Carol Ulyett Marks
 Robert John Martin
 Thomas Edwin Martin, Jr.
 Jill Anne Massey
 Pamela Ann Mattix
 Barbara Alice McAdoo
 Madelyn Carole McDade
 Robert David McKnew
 Lois Ruth McKnight
 J. Frederick Merriman
 Ann Marie Miller
 W. Robert Miller, Jr.
 Olympia Danae Mino
 Donna Lee Mitzel
 *Richard Bruce Mintz
 Robert Allan Mix
 **Tetsuo Miyabara
 Lynne Ellen Montgomery
 **Patricia Carol Mooney
 **Joanne Regnier Moore
 Eleanor Kay Morgan
 Barry Arthur Morris
 Barclay Holmes Morse
 Mary Janet Moulis
 Richard Stow Mullen
 Ruth Marie Munch
 Thomas Hunter Nevin
 David Albert Nielsen
 Barry Lee Nissly
 Edward Eric Nolan
 Charles Leonard O'Brien
 **Lynn Carol Ochsenreiter
 Barbara Joan Otteman
 Joyce Elizabeth Payne
 **Linda Ann Peebles
 Gerda Maria Pfeifer
 Edward Alan Polloway
 Nikia Marie Popow
 Arthur Lewis Popp
 Susan Colquitt Poteat
 **Daniel L. Pottiger
 Harriot Lee Printz
 Elaine Marie Pyzowski
 Margaret Alice Quin

Henri Simons Rauschenbach
 *Thomas Haydn Reese, Jr.
 Walter David Reese, Jr.
 Stephen Clyde Rettenmayer
 George Douglas Reynolds
 Edwin Laverne Rice
 Beverly Louise Rich
 Frederick T. Richards, Jr.
 Kate Palmer Roberts
 Gregory A. Ross
 Michael Charles Ross
 Sandi Smithey Ross
 Diane Lynn Rothman
 James A. Rothschild
 Barbara Ann Rubin
 Stuart Ramsey Russell
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 John Bartow Sanders
 Scott Robert Sanders
 Peter D. Schmidt
 Barbara Ruth Schroeder
 Linda Ruth Schultz
 Gregory W. Schummers
 Kathleen Marie Sheay
 Donald Michael Sherwin
 Sandra Jean Shriver
 Sandra Lynn Shullman
 Susan Lee Siegrist
 Gwenn Susan Sigafoos
 Gregory Vincent Smith
 Richard George Smullen
 William Edward Snell
 Jeffrey Lynn Snook
 Elizabeth Ann Snowdon
 Charles Stewart Wurtz Spahr
 Susan Nancy Spector
 **Stanford Springel
 Paul William Stasz
 Andrea Joan Stickney
 Susan Helene Storer
 Elliot Arnold Strokoff
 Andrew Ira Strunk
 Mary Elisabeth Stuart
 Jay Stanley Stuck
 Richard Gable Studenmund

Wayne Leroy Sunday
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*Graduated as of September 16, 1968

**Graduated as of February 3, 1969

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